

MILITARY Miniatures

★ ★ ★ ★ ★ IN REVIEW ★ ★ ★ ★ ★

Check out the new ride!

AFV Club fills in the gap with an SdKfz. 11

Godzilla's Mosquito:
the ancient Tamiya
Type 61 MBT

**Jousting with a Neutron
Lance:** building HobbyFan's
Lance missile kit

**Adding new skirts to an
old gal:** building and
detailing the Modelcraft
Centurion kit

**Making the most of my
Motor Carriage:** tag-
teaming a helpless M12
motor carriage

Teeny Tiny Tankette: the
FineMold's Type 94

Leave the driving to us:
super detailing the Tamiya
M8 Greyhound



Awesome Autocar!

**A little bit more WW2 motor
transport is realized in resin**



**MMiR:
all nude,
all the
time!**



**Dear Mr. Churchill: a
close look at the re-
released Churchill Mk VII
kit and the Eduard brass**

No. **28**





From Your Editor

Hey, remember that whole Euro Tour thing I was rambling on about in the last issue? Well, we're going to do it again. Yep, that's right. If you missed the first time around, here's your chance to get in on the action.

I am going to lay this on you early, before we talk to the tour provider (Virgin Atlantic), just to pique your interest. This is my fiendish plan. Our trip will again be based around the Euro Militaire event, which is being held on the 14th and 15th of September 2002, a week earlier than last year. I won't go into the show at great lengths here, but suffice it to say that the show is Europe's top event for military modelers and I would embellish that to say perhaps in the world. This year's trip would see us depart a day earlier than last year, on the Wednesday before the show, rather than the Thursday. It's an overnight flight regardless of where you depart, so all members will arrive on Thursday, the 12th. The plan is to proceed directly to Folkstone, the location of the show, on Thursday. Folkstone, on the southern coast of the UK, is right next to Dover and this is a major departure point for ferries to France. Folkstone is the terminus for the channel tunnel and both

these facts will figure in later. We will stay in a local hotel (or maybe two depending on the size of the group) and generally detox from our jet lag. Although we have not confirmed our

accommodations, the plan is to have our rooms in very close proximity to the hall where the show is held. Easy walking distance is the goal. If you have an early flight, you can take the remainder of the day to explore the area, or just hang out.

Bright and early Friday morning, a bus will arrive and whisk us off to France for a tour of at least one of the Normandy beaches. This is a pre-existing Virgin tour and we hope to be able to tailor it to our specific needs. Because of the distances involved, this trip will take the entire day and the early evening. Our bus will deliver us right back to the hotel and Friday night will be devoted to a local dinner and socializing with the arriving vendors and guests.

Saturday and Sunday (the 14th and 15th) are, of course, devoted to attending the show. Because of our proposed proximity to the hall, you will have the opportunity to browse and return to your room to relax or enjoy a sit-down meal. Last year, a few of our tour members opted not to attend the show on one of the two days. Being in Folkstone will provide you with the opportunity to return to France or tour the surrounding area, if you wish. The town of Sandgate is only a short cab ride north of Folkstone and it provides a unique and charming atmosphere to browse, shop or to sample the local brew (hey, you're taking a cab, right?). Dover Castle is also close and is a very interesting historical attraction. Your show pass will allow you to leave and enter the show as much as you wish, so you may still attend after any local excursion.

One of the most prevalent requests we had last year was for more free time in the fabulous city of London. So, late in the afternoon of the 15th, a bus will take us back to London for the remainder of the trip. We will stay in a comfortable hotel, possibly in the same location as last year. This hotel is being renovated and we're not sure if it will be done in time for the trip. However, we'll use it as our bench mark for securing another hotel. The remainder of Sunday evening is yours, as are all day Monday and Tuesday (the 16th and 17th). You can explore the city or use it as a base to explore other nearby regions. London has a huge amount to offer the historically minded tourist and we will again recommend the Imperial War Museum, the British Military Museum and the veritable host of other museums that dot the city. London is also just a really cool place to hang out. Virgin provides a great London City Guidebook in their tour package and it's as good as anything you'll find in the bookstore. This will be your chance to give it a workout.

These free days could also give you the opportunity to visit Paris, either via the channel tunnel or by plane. This aspect of the trip is not included in the Tour package, but a brief trip can be accomplished in a single day. We can provide information on where to purchase tickets and a short list of hobby-related destinations in the city.

The trip will be scheduled to end on Wednesday, the 18th. All members will depart to their various destinations from the hotel and, due to the time change, will arrive back in the U.S. on the same day.

If you did not attend last year, all the transfers to and from the airport are included in the price of the tour, as are the flight, the hotel and the show admission. This year's price will also include the Normandy trip. The prices will be based on your point of departure in the U.S. Last year, Virgin was able to provide 9 different points of departure for our convenience, although we did not use all of them. This year's list may be a little different, but it should still be quite diverse. Virgin will also customize your package, if you want to arrive and depart at different times.

We have not yet asked Virgin to structure the trip for us. Here is the reason. Last year's group was smaller than anticipated, but we found that the small number of people made the trip all the more pleasurable. Everybody had a chance to pal around and keeping tabs on everyone was a lot easier. So, rather than ask Virgin to quote a range of visitors for us, we are limiting the tour to 25 people and that's that. I am also letting this information out very early, to give everyone the maximum amount of time to respond. If you are interested in attending, I'm asking that you send us a letter as soon as possible, with a check for \$150.00 for each proposed tour member. This will secure your place on the tour and allow us to proceed with our plans. This deposit will be entirely refundable, until the time we receive the final itinerary from Virgin. Once we have your confirmation, we will continue to contact you directly with all developments.

Although the price has not been set, I strongly suspect that the prices will be very similar to last years. The slow travel market should work to our advantage. If you have any questions about the trip or the information sited above, just give me a call and I'll be happy to discuss it with you.

Magazineland

In an effort to step up the schedule a bit, we have gone back to a longer review. I kinda missed those old 8-pagers. We aren't going that nuts, but this issue has a few 5-pagers. We are finally accumulating a significant backlog of material so we will start packing it in. We have also solved a significant issue by firing our mailing house. They were the primary cause of the delay in the delivery of issue 27 (that and me not standing over them with a large, pointed stick). Dig in!

—Pat Stansell

COMING SOON TO MMIR:

Get Shorty

MR's Japanese SPG conversion.

Panzer Haubitze 2000

The massive Revell kit gets the MMiR treatment

Dueling Shermans

The newly rehabilitated and released Tamiya Shermans.

The Return of Geschutzwagen

P&J Design's new all-resin 7.5cm Geschutzwagen.



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The Mail Sack



M35 talk

Thanks for the nice job on Issue 27. I have to agree with the letter writer who said you guys should do an issue on Jeeps or Humvees, ala the Kübelwagen special. I would be in favor of both of these issues, particularly the Humvee, as a dig deep article on this vehicle is long overdue! I think you could even do something along the lines of the Sherman book on the Humvee to do this vehicle justice. The kits and information are out there.

The real reason for writing concerns the review of the AFV Club M35A1 Gun Truck. I would like to sort out some misconceptions about these kits and gun trucks in general. Ken Dugan states the truck is the M35A1 of Desert Storm and not the earlier M35. This is only about half true. Actually, the earlier AFV Club kit of the M35A2 is more correct for Desert Storm, at least as far as what the Army used. There may have been some M35A1s used by the other services, such as the Navy, in that engagement. This is another case of the model maker making a later kit of an earlier variant, something aircraft builders know all about.

The other problem comes with what the kit really is. In my opinion, it is not a true A1 from the box. It is sort of an M35A and one half. I think AFV Club took the path of least resistance and corrected the obvious, while figuring everyone would be so dazzled by the .50 cal's they would ignore the small defects that only a purist (or a 63B30 Light Wheel Mechanic such as I) would notice. Yeah, I'll grant it's small stuff, but I think someone should tell the modeling world about it.

Probably the most glaring error concerns the little exhaust pipe, part M12, which goes inside the fenders, part B12. This is the base of the vertical smoke pipe for the A2 version that goes along the right side of the cab. The earlier A1's had a horizontal exhaust pipe that is pretty well represented by part M12 (the new M12), which should be just stuck inside the round hole at the base of the right wheel well. The rest of the pipe just snakes along the frame, so the end comes out just between the duals. The little hole in the right fender should be plugged (something AFV Club should have done). The location for the pipe is not shown too well in the instructions, but it really doesn't matter. In real life, a replacement exhaust comes as a box of parts and clamps and the mechs figure it out as they go along. So, there are different looks to the same part. Plus, as a friend (who had 38 years as a mechanic!) once said to me: "try to imagine how it will look after the truck hits a few tree stumps!"

The other snag is the grille/radiator, part B38. Somewhere between A1 and A2, the headlights went from the lower part of the grille to the top.

Except for winch equipped trucks that used the high mounting no matter what the series. Since Nancy has a winch, the grille is correct for an A1, yet would not be right on a true winch-less A1.

The other details are minor. The little guards on the front fender, parts B22, should probably be a little more flat on the top for an A1 with the earlier small signal lights, but that's not too noticeable. The later style guards are larger on the A2, which makes the earlier lights furnished with the kit look too small. Heck, we still had some A2's in the late 1980's that had the earlier lights, which we changed to the composite lights. Of course, the lights came with new, larger guards too.

Overall, both AFV Club kits build into a good representation of a well-known subject. The earlier M35A1 kit is very well done, if somewhat over engineered. Do we really need a separate Hydrovac, part A61, to make an accurate model? Plus, the instructions are unclear as to the locations of some of the parts. It helps me to have the I:L subject to drive over and look at when I get stumped, which is a luxury everyone else does not have. My other gripe about the Deuces concerns the lack of markings for any of the other services. It sure would have been nice to see Navy or USAF markings for the M35A2. Or even the earlier white stars (hey Archer!).

Anyway, thanks for listening to my gripes. I've been a fan of Deuces since I was a kid and I still like them over some of the newer trucks. I think you guys put out a great product, too—it should be monthly.

—Don Skoluda
(not a tanker or a cav scout,
just a mechanic)

Ken responds: "Well, I never said I was the biggest expert on M35 trucks." This was followed by a severe bout of crying and Ken became inconsolable for several hours, lying down in the fetal position and then falling asleep. Don's points are well taken and we would like to see more interest in this subject and kit. We still think an M35A3 update set for the AFV Club kit would be a winner. This truck was the product of the Army's ESP (extend service program) and the resulting vehicle is pretty cool looking with its super single radials, tire inflation system, and cab and muffler mods. Hey, reference is only a National Guard Armory away!

✉

Talk about your weight lifting

Most people might not know this, but before Arnold Schwarzenegger moved to this country and became an actor, he was conscripted into the Austrian army where he drove an M47 Patton. Some of his heroic exploits included racing it down a hill with troops riding on the hull, forgetting to put the parking brake on and having the tank roll into a building. It's also said that he took out all of the tools in the stowage bins to make room for his weights! Anyhow, he recently went back to Austria and located his old tank. When the Austrian army decommissioned their M47s, they buried the tanks up to their hulls and used them as pillboxes along the Hungarian border. Arnold brought the tank back to the States, had it restored and it is now in Easton Town Center in Columbus OH.

—Michael Kalbfleisch

Well, he did say, "I'll be back."

✉

Q&A on the ETA

How about printing an ETA for the next issue? I buy mine at the hobby shop, but never know when to even start looking. If I had a subscription, I probably wouldn't even know it was late.

Good for you guys in going to England. Nothing pisses off terrorists more than not being able to terrorize. How come you don't look like your drawing?

F'em all, the long and the short and the Taliban.

—Ed Keene
kle0124@hotmail.com

OK, lots of ground to cover with the Edster. First of all, although we are trying not to make too big a deal about it, we have overhauled just about everything regarding the production of the magazine. Our goal is to give you the best possible service and crank out as much great material as we can, as soon as possible. Once we are certain that all these changes are in place and working correctly, we'll publish a schedule for the remainder of the year and beyond.

I don't look like my picture because I am really way too good looking to be accurately rendered in caricature. No, really it is a caricature and it tends to emphasize my freakishly large nose and head. Plus, I'm wearing an apron and Optivisor, which I only rarely wear in public—with clothes. Now, stop asking so many questions or we'll send you to bed without your MMiR.

What up, publisher dudes?

Just when can we expect the Tiger book?

—Len Catinella

Excellent question. Anyone? Well, the short answer is that modeler's guides, as we envision them, are a hump. When we set out to do a modeler's guide it is with the vision that it will cover absolutely everything. We still think this is a good idea, but trying to assign a deadline that sticks is very tough. Lack of motivation, you say? Nothing could be further from the truth. It's more like too much motivation. The concept behind the Tiger title was to give you one true single reference on modeling the subject. To that end, the book contains essentially two books in one. The first is an enormous photo and drawing section. This section also contains a running text that explains (with the photos and drawings) all the developmental and production changes to the Tiger I and Tiger II. This section contains over 100 photos and 150 drawings. This is no rehash, either. Some of the wartime stuff is familiar, but we have chosen the images carefully and presented them with an eye towards details that are relevant to the modeler. The same is true of the drawings. This section is so comprehensive that we briefly considered releasing it as a separate book.

The second part of the book is an extensive look at twelve different Tiger models. We have endeavored to utilize every available component on these models, in order to showcase their potential usefulness to the modeler. What's good and what's not. What's good about the kit and what's not. This also means all the Aber brass that could be stuffed onto the model, clasps, fenders, etc. This also means resin parts, metal barrels, link-to-link tracks and a fair amount of scratch building and converting. Each kit has its own "combat diary," detailing every process accomplished to complete the

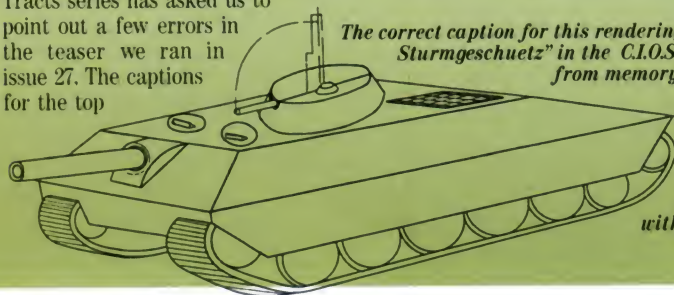
model. In one section alone, this runs to over 60 photos with text. The diary section as a whole has nearly 500 images! A two-page, full-color spread completes the story of each kit and discusses the actual vehicle and the color scheme in historical context. Archer Fine Transfers produced a special set of dry transfers for us and it is already available.

So what's the point of all this rambling? Are we just making excuses? No, it's that a book like this takes time. Often this is more time than expected (way more in fact) and more than we would like. Think about the last super project you had planned or accomplished, then multiply it by twelve! However, even as this response is written, the project is heading towards completion. We are all very proud of the way it's turning out and we can say with confidence that there will be no other book like it. It will definitely be worth the wait!

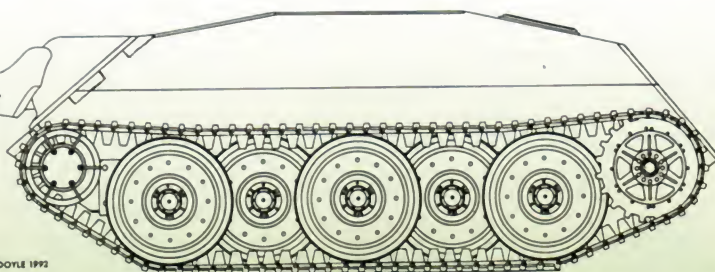


Faux faux fracas

Tom Jentz, author of the Panzer Tracts series has asked us to point out a few errors in the teaser we ran in issue 27. The captions for the top



The correct caption for this rendering is: The sketch of the "27 ton Sturmgeschuetz" in the C.I.O.S. report which was drawn from memory by P. Schmidt on 15 May 1945. Compare it to the drawing of the Porsche/Rheinmetall design for a schwere kleiner Panzerkampfwagen mit 105 cm (heavy small tank with 105 mm gun).



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The correct caption for this rendering should be (the drawing here is not shown to scale): A 1/48th scale drawing of the E 25 based on an original drawing from Adler. Not a single component is

shared between the Adler and the Porsche design. The only crosstie was that the rear mounted transmissions were designed by the same company.

and bottom drawings were transposed. The top drawing is the sketch referred to in the text. And speaking of the text, there were three errors there, the first is in the left column and refers to the E 25 as the "B25." The second error is in the right column and refers to the Maus II as the "Maus H" (this is what we get for using OCR). The web site address was sort of stretched out, too. We would also like to point out that

while we were doing all this, we had bad breath and smelly feet, as well. Those responsible have been forced to listen to fan messages on Mariah Carey's web site for twelve hours.



If you would like in on any of the dialog in MMiR, drop us a brief letter written on a fifty dollar bill or better yet, inscribe it on the bottom of a fully functional DMD radio-controlled Tiger I with speed control and optional optical targeting unit and send it to: Mail Sack, Ampersand Publishing Co., Inc. 235 NE 6th Ave., Delray Beach FL 33483 or mmirpat@aol.com. Letters are sometimes edited for brevity, obscenity and national security, or just to make you sound smarter.

We sincerely regret that we rarely, if ever, are able to personally enter into correspondence with our readers.

Just arrived from K59 Productions

R&J represents a new line of exquisite resin cast accessories from Hong Kong



K59-3503 Marder III Detail Set \$36.00

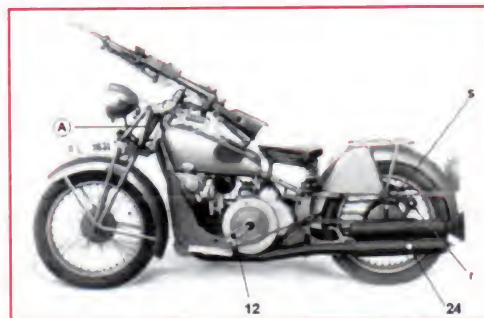
Coming Soon

K59-3504 Marder III Gun & Shield Set

New from Historica Productions

**HP5018
Motoguzzi GT17
Italian WWII
Motorcycle.**

This kit's features include: etched wheels with resin tires by Model Victoria, detailed resin bike with etched add-on parts, plus a resin rider figure. \$40.00



Coming Soon From Historica Productions

Full Kits	Est/Price
HP1010 Breda Mod. 32 Artillery Tractor	\$68.00
HP1011 Semovente da 75/18 M42	\$65.00
HP1013 Semovente da 75/34 M42	\$65.00
Conversions for Italeri/Zvezda M40 kits:	
HP3010 M40 Semovente upgrade set	\$28.00
HP3011 M41 Semovente upgrade set	\$28.00
HP3012 M13/40 Command Tank conv.	\$28.00

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The Year in Preview



Aber

Some of the most elaborate work to come down the pike in the Aber line is present this time around. 35100, **Marder III (Sd.Kfz.139) Vol.1 Basic Set** (Tamiya), \$22.99; 35101, **Marder III (Sd.Kfz.139) Vol.2 Additional Set** (Tamiya), \$15.99; 35A70, **German jerry can set** (for Tamiya set no. 186), \$9.99 and 35A71, **Ammo boxes for German MG34 & MG42 (WWII)**, \$9.99.

The jerry can set is something special, with a variety of parts to improve what was thought to be "unimprovable." Several delicate parts are included that create a very realistic assembly for the caps. Way cool. The MG box set is just (just) short of insane and the parts actually mimic the real sheet metal stamped parts.

Academy

As expected, Academy has ponied up another version of its tank destroyer. This time it's 1393, **M10 Tank Destroyer**, \$36.00. The kit is very well rendered and it contains many of the same useful sprues as their earlier Achilles kit. With all the cool stuff in the box, it also represents an excellent value at \$36.00. We can't wait for the M36!

Accurate Armour

Just released from the guys at AA are three new complete Centurion kits; K73, **Centurion Mk-5/Mk-6**; K73TD, **Centurion Tankdozer Mk-5/Mk-5/2**

and the impressive **Centurion Mk-11 (K78)**.

There are two new **modern British infantry figures** joining AA's extensive figure line. The stock numbers here are F50 and F51. A new **Falklands Para figure set** is also available now and it is stock number F07.

Down in conversion country there are two new Egyptian T34 conversions, the **T34-122 SPG (C69)** and **T34-100 SPG (C70)**. Other recent vehicle releases include the **CVR (W) L VIXEN Scout car (KT125)**, the **A30 Challenger Tank Destroyer (K06)** and the **FV433 Abbott 105mm self-propelled gun (KT151)**. They have also re-released their **M26 Pershing (K43)** and **M46 Patton (K69)** model kits.

No U.S. prices were available, but current UK pricing and conversion rate can be found on their web site at www.accurate-armour.com

Archer

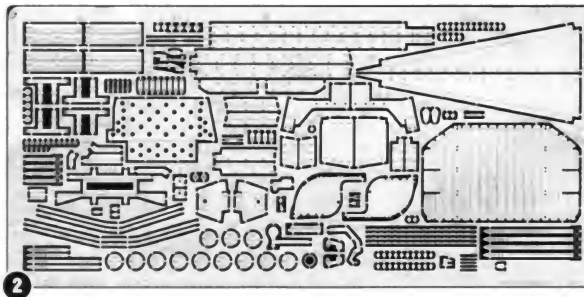
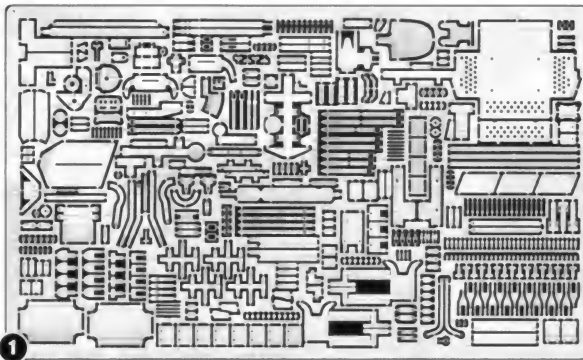
These guys release so much cool stuff, if you blink, you'll miss it! Here is a piece of the very latest from the dry transfer maniacs. 35138, **2nd Armoured Brigade M4A1 Shermans at El Alamein**, \$8.95; 35139, **Modern Canadian KFOR Markings**, \$10.95; 35140, **ISU 122-152 Markings (Builds 4 Vehicles-Includes Placement Schematic)**, \$11.95; 35141, **U.S. 48 Star Flags For Vehicles**, \$10.95; 35144, **Jolly Roger Flags & Markings**,

\$8.95; 35145, **U.S. 6th Armored Division M4A3E8 (68th Battalion)**, \$4.95; 35146, **U.S. 6th Armored Division M4A3E8 (15th Battalion)**, \$8.95; 35147, **U.S. 6th Armored Division M4 (105) (69th Battalion)**, \$4.95; 35148, **Generic Soviet Turret Numbers**, \$6.95; 35149, **Miscellaneous Medic Related Markings**, \$8.95; 35150, **1st Armoured Division Formation & AoS Signs 1940**, \$11.95; 35151, **IS-2 Markings**, \$11.95; 35152, **Canadian IFOR/SFOR Markings**, \$11.95; 35153, **Canadians in Somalia**, \$8.95; 35154, **Modern Canadian License Plates**, \$7.95 and G35027, **U.S. Tank Destroyer Insignias & Uniform Patches**, \$6.95.

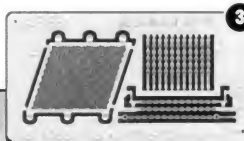
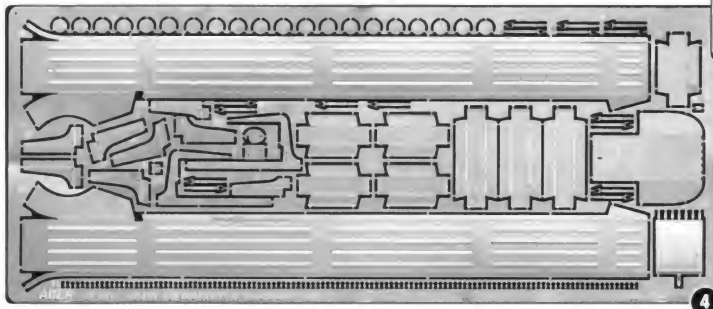
Up to the minute information can be found at www.archertransfers.com

Custom Dioramics

Custom Dios continues to be among the most prolific of all the aftermarket companies. We've got three categories for you this time. In armor and soft skin details we have 2006, **Willys Jeep Detail Set** (etched), \$10.95; 2007, **U.S. Army Radios and Walkie Talkies** (seven resin parts, two radios, one walkie-talkie and two bags), \$8.95; 2008, **Sherman Hedgerow Device #1**, \$7.95; 2009, **Sherman Hedgerow Device #2**, \$7.95; 2010, **Sherman Hedgerow Device #3**, \$7.95; 2011, **Sherman Hedgerow Device #4**, \$7.95 and 2012, **M10/Achilles Detail Set** (etched), price TBA.



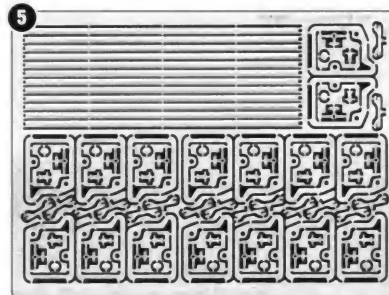
1-3. Miles and miles of Marder madness for your new Tamiya kit from Aber. 4. Aber's full fender set for the Marder. 5. Jerrycan assistance from Aber. 6. Only Aber could do this: etched ammo cans for the MG34/42. 7, 8. Two of the new Sherman hedgerow cutters from Custom Dioramics.



Up to date information can be found on www.dragon-models.com

Eastern Express

Eastern Express is a yet another former east block manufacturer that has been cranking out the goodies for some time. The quality is decent and many of their subjects are sought after by the Russian armor crowd (you know who you are). On board the latest "Express" are: 35110, BT-7 model 1935 Command Version with Frame Aerial, \$29.99; 35129, BA-3 Russian Armored Car Railway version, \$29.99; 35130, BA-6 Russian Armored Car



Czechmaster CMK

We are starting to get more information from these dudes and we're happy to bring you the following new dope. Up in new full kits are 35003,

Henschel Type 33 F1

LKW; 35007, Praga RND-3-ton 4x2 truck and 35012, Praga V3S 3-ton 6x6.

Did you know that CMK now has a line of photo-etched parts? Here's what's new there. 35050, Marder III Sdkfz. 139 and 35051, Marder III Sdkfz. 139. Prices are TBA.

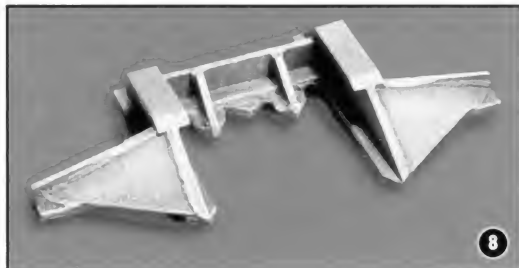
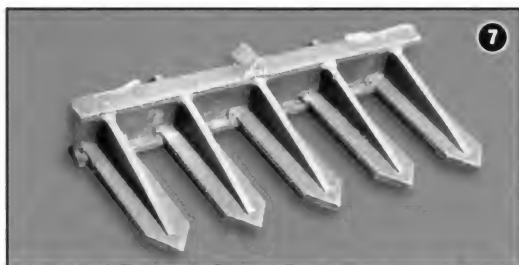
New in conversions and accessories are 3019, GMC CCKW 353 Fuel Tank Conversion Set for Tamiya, \$17.50; 3020, Pz-35(t) Skoda Lt vz. 35 Engine Set (Skoda T-11/0) for Czech Master, \$12.50; 3021, Panzer III Engine Set (Maybach ML120TRM) for Tamiya, \$17.50; 3022, Marder III Interior Set for Tamiya, \$12.50; 3023, Marder III Engine Set (Praga AC) for Tamiya, \$12.50 and 3024, StuG III Interior Set for Tamiya, \$22.50.

Dragon

One interesting development in Dragonland is the introduction of what they are calling **Micro X tech, 1/72nd palm-top R/C Armor**. This reflects a very interesting Japanese trend of motorizing smaller and smaller tanks. The first release will be a Tiger I and the kit will include the tank, a base and the radio control unit.

Dragon will flesh out their 1/6 action figure line with a new series on the **10th Mountain Division**, during both WW2 and the present day.

They will also introduce a **brand new line of 1/18th-scale figures**. The first will be a series of 101st Airborne figures. The tag line is "A Band of Brothers that fits in your stocking" These will probably be hot and immediately hard to find. Keep an eye out!



Fleshing out their growing line of resin accessories is 6043, **European Farm Equipment, WWII**, \$29.95; 6044, **European Kitchen, 1920-1950**, \$29.95; 6045, **Tombstones & Markers**, \$24.95 and 6046, **Cedar "shake" Roof Section (8 x 11)**, \$22.95.

CD's original claim to fame is diorama components & accessories in poly-foam and resin. This time they have added 7003, **European Town Hall & Clock Tower**, \$149.95 and 1127, **Masonry Bridge WWII, European**, \$99.95. These are both massive items and both would make into a stunning set pieces for your latest armor project.

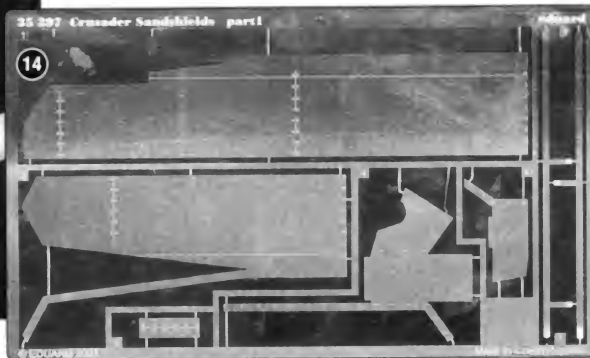
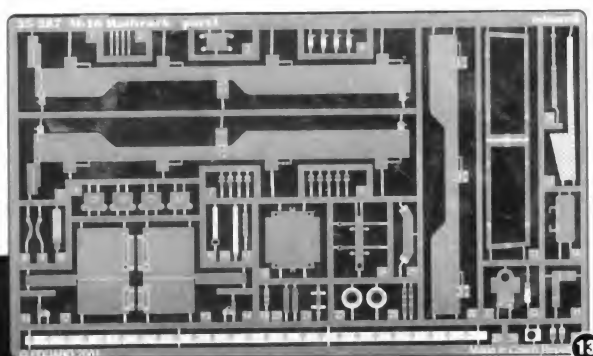
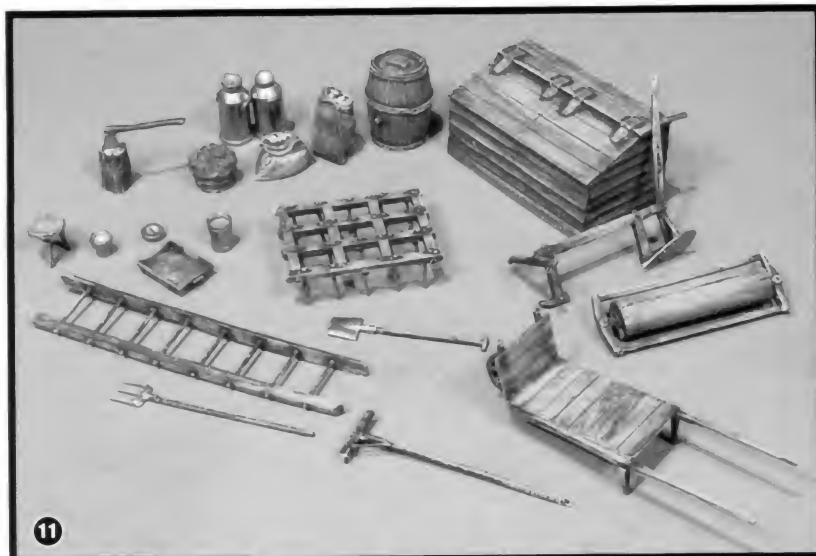
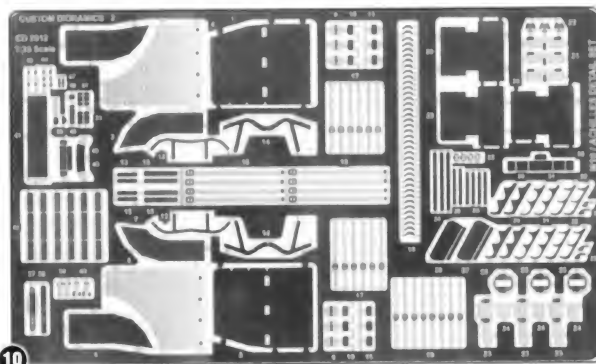
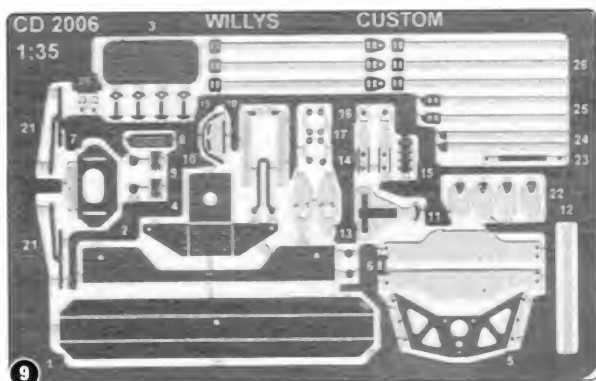
Railway version, \$29.99; 35150, ZIS-5V, \$20.50; 35151, ZIS-44, \$20.50; 35152, ZIS-42 Halftrack, \$20.50; 35153, ZIS-5V Fuel Tanker, \$20.50; 35154, ZIS-5V-BZ Fuel Truck, \$20.50; 35161, BRDM-1, \$29.99 and 35162, BRDM-U, \$29.99.

Eduard

The hits just keep on coming and coming, kiddies. Many of the Eduard sets now offer improved content and quality. Take a real deep breath and read the following out loud seven times.

35387, **M-16 Halftrack** (Tamiya), with Express Mask and dash detail, \$22.99; 35395, **Achilles** (Academy), \$22.99; 35397, **Crusader Sand shields** (Italeri), \$14.99; 35406, **M113** (Tamiya), \$22.99; 35408, **PzKpfw. II Ausf. D** (ICM), with Express Mask, \$19.99; 35409, **Sd.Kfz 250/9** (Tamiya), \$22.99; 35410, **S-10 SV Strela Interior** (SKIF), with dash detail, \$19.99; 35412, **S-10 SV Strela Exterior** (SKIF), with clear detail sheet, \$22.99; 35413, **M-151A2** (Tamiya), with Express Mask and dash detail, \$19.99; 35414, **T-34/76 Model 1942** (Tamiya), \$22.99; 35415, **LAV-25 TUA** (Italeri), \$19.99; 35416, **KV-1/KV-2 Fenders** (Tamiya), \$19.99; 35417, **SdKfz. 2** (Dragon) with dash detail, \$19.99; 35418, **SdKfz. 166 Brummbär** (Tamiya), \$19.99; 35419, **KV-II** (Tamiya), \$19.99; 35420, **Zimmerit SdKfz.166 Brummbär** (Tamiya), \$14.99; 35421, **BT-7** (Eastern Express) with dash detail, \$22.99; 35422, **Crusader II** (Italeri), with dash details, \$19.99; 35423, **WC-63 Big Shot** (Skybow), with Express Mask and dash details, \$19.99; 35424, **Pz V Panther Ausf A** (Tamiya), \$22.99; 35425, **Pz V Panther Ausf A Zimmerit** (Tamiya), \$14.99; 35426, **M113A1 Vietnam Interior** (Academy), with dash details, \$19.99; 35427, **Pz. IV Ausf.D** (Tamiya), with Express Mask, \$22.99; 35428, **M41 Walker Bulldog** (Tamiya), \$19.99; 35429, **SdKfz 166 Brummbär Schurzen** (Tamiya), \$19.99; 35430, **M113A1 Vietnam Exterior** (Academy), \$19.99; 35433, **M3 Lee** (Tamiya), with dash details, \$19.99 and 35435, **M-163A1/A2** (Academy), \$19.99. Whew!

Now, if etched sets are not enough for you, Eduard has announced a new line of turned brass barrels to compliment their etched brass. Two have



9, 10. The Custom Dio set for the Willys Jeep (top) and the M10 Tank Destroyer (bottom). 11. A very nice farm equipment set from CD. 12. Weird and wonderful, the mini RC Tiger coming from Dragon. 13. Eduard's M16 AA half-track set. 14. The large and in charge Crusader sand shield set from Eduard.

been announced, so far. They are 34001, **Panther G Barrel** (Tamiya), \$11.99 and 34002, **T-72 Barrel** (Tamiya), \$11.99. These are particularly nice and the Panther barrel has the muzzle brake milled right on the end of the barrel!

In the Express Mask line, they also add XT048 for the BT-7 at \$4.99.

Elephant

Elephant, known for its extensive line of armor accessories, has got a lot going on. They have a new series called the **Panzerwaffe at War**. These high quality detail sets will gradually replace their 35000 Series. Each set contains photo-etch, resin and cast metal parts. Here's the run down (intended subject kits are in parentheses): 3501, **Sturmgeschütz III Ausf F/8 early late** (RM, DR, GS), \$11.95; 3502, **PzKpfw VI Tiger II, Porsche, Henschel** (TA), \$11.95; 3503, **PzKpfw III J Late** (RM, DR, GS), \$12.95; 3508, **Sturminfanteriegeschütz 33** (DR), \$6.95; 3509, **Jagdtiger Porsche, Henschel** (DR), \$8.95 and 3510, **Jagdtiger Henschel** (3509 & engine mesh) (RM), \$12.95.

New in the straight etched line are: 35022B, **Sig 33 Detail Set**, \$13.95 and 35026A, **PzKpfw III J**

Late Command Tank Detail Set, \$25.95.

Elephant's large line of turned barrels continues to grow. Many of these are fleshed out with etched and white metal parts. And so we have: 35437G, **20mm Flak 38 Barrel Set** (TA), \$35.87; 88mm PaK 43 L/71 Jagdpanther Barrel (IL), \$8.95; 35388, **88mm PaK 43 L/71 Early Barrel** (RM, DR), \$5.95; 35389, **88mm PaK 43 L/71 Jagdpanther Late Barrel** (RM, DR), \$8.95; 35390, **88mm PaK 43 L/71 Jagdpanther Late Barrel** (TA), \$8.95; 35391, **88mm KwK 43 L/71 for Kingtiger Porsche Barrel** (TA), \$6.95; 35392, **88mm KwK 43 L/71 for Kingtiger Porsche/Henschel** (TA), \$8.95; 35396, **88mm PaK 43 L/71 for Nashorn Barrel** (DR), \$8.95; 35422G, **75mm StuK 37 L/24 Barrel for Dragon StuG III A**, \$3.95 and 35444G, **50mm KwK3w9 L/60 for Panzer III L** (TA), \$3.95.

In just plain 'ol accessories we have: 35548, **German License Plates, Set 1** (photo-etch with decals), \$11.95; 35549, **German License Plates, Set 2** (photo-etch with decals), \$11.95 and 35552, **Washers for Bolts, Nuts & Screws, Set 1**

(286 pieces), \$3.95.

Elephant is represented exclusively by VLS mail order and current information can be found in their latest newsletter or at www.modelmecca.com

Fort Duquesne

Better known for figures than armor, the fellers at Fort Duquesne (pronounced due-cane) have gone and

released a very spiffy **VVSS suspension set** for your next Sherman model. The set is cast entirely in resin and represents the ultimate in Sherman geekiness. This is a completely scratch-built and corrected set with a stunning level of detail through each casting. Wheels are also included and these are the solid spoke types (detail on both sides, of course), which contain both bolt and grease nipple detail (heh-heh, he said "nipple"). The stock number of the set is FDA101 and the retail is a scant \$12.00.

We're looking forward to giving this the full run down in a future issue of MMiR. Interested parties (or those interested in a party), can reach them at Fort Duquesne Military Miniatures, 105 Tristan Drive, Pittsburgh, PA 15209, telephone 412-486-1823 or fax 412-486-5217. Their e-mail is ftduq@star-gate.net and the website can be found at www.users.sgi.net/~ftduq

Harper Castings

Harper has been known for a small line of interesting figures and one or two conversions. However, things are starting to pick up. Once again, we haven't

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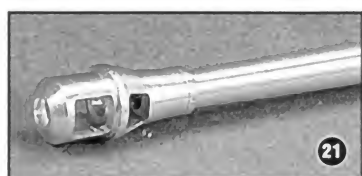
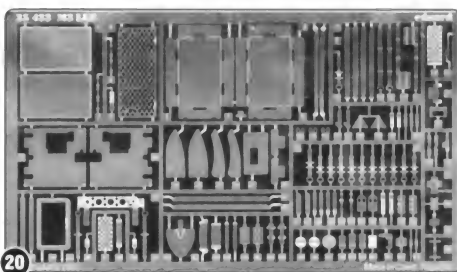
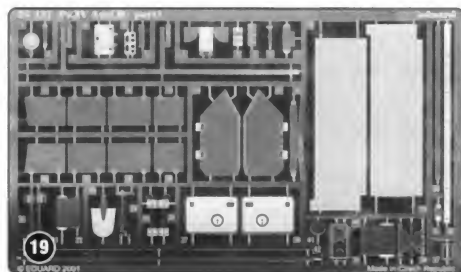
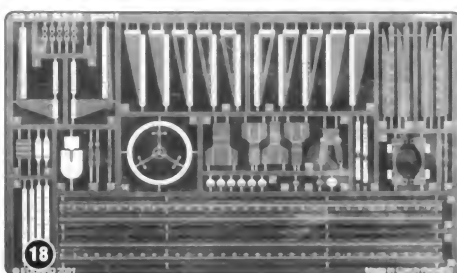
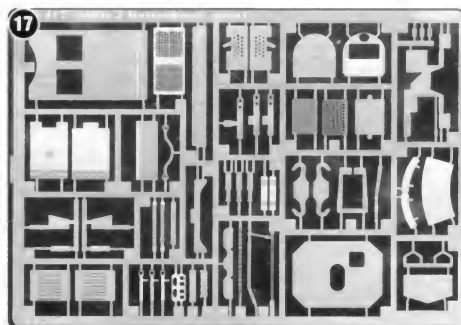
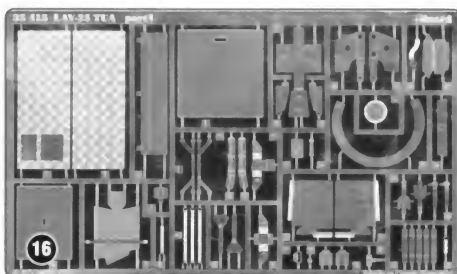
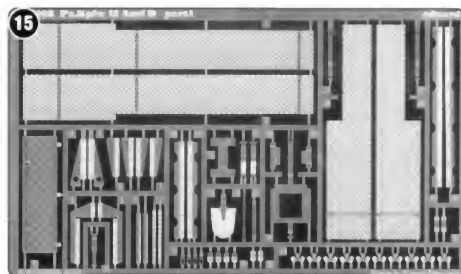
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15. Eduard's Panzer IV D set. 16. The new LAV set from Eduard. 17. Eduard spices up the Dragon Kettenkrad with this set. 18. PE help for the Eastern Express KV from Eduard. 19. Eduard's new T-72 barrel.

Eduard's second set for the Panzer IV D. 20. Tamiya's old M3 Lee gets the Eduard treatment. 21. A close up of the magnificent integral muzzle brake on the new Eduard barrel. 22. Eduard's new T-72 barrel.

been reporting much on these guys. Well, in an effort to change that, check out the following cool new stuff. HR A001, **USMC Tank Crew**, \$17.95. This is three partial figures, plus a USMC Sherman hatch. HR A004 is **LVT-A-1 Amtrac Crew**, \$24.95. This crew can be used for any WWII LVT-A-1 Amtrac.

New in 1/35 resin accessories is HR DB1, **Rocky Terrain Figure Base**, \$9.95. This 2 x 2-inch resin figure base represents any rocky terrain from Iwo Jima to Afghanistan. HR DB2 is **Desert Terrain Figure Base** for \$9.95. This 2 x 2 resin figure base represents any desert terrain from the Gobi Desert to Death Valley.

Newly released for a second time is HR T006, **Japanese Shin-Hoto Turret**. This limited edition re-release is priced at \$18.95. This turret may be used on Type 97 "Chi-Ha," "Shin-Hoto," Type 1 or Type 3 "Chi-Nu" vehicles.

Harper is also represented exclusively by VLS mail order.

Historica Productions

We just about NEVER receive new product information from these guys. Their 1/35th scale kits are pretty popular when they can be found and contain resin, photo-etch and quite often, decals, too. A word of advice: if you find them, grab them! We have skinny on Art.5018, **Moto Guzzi GT17 con Bersagliere** in AS. This is an Italian motorcycle and, as

described above, the kit includes resin, etched parts, decals and a figure. This kit is not the same subject as the earlier Model Victoria item, so if you're into this type of stuff, you now have quite a selection.

As far as we know, Historica can only be found through R&J Productions. For more information see their ad on page 6.

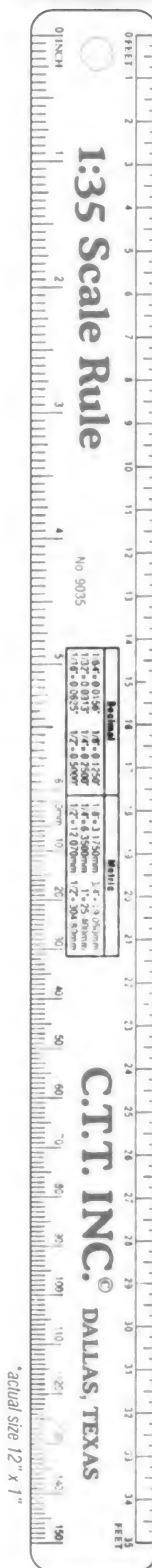
ICM

We're not exactly sure what's going on with these guys. Releases have slowed way down lately. Here's what they are listing on their web site (all prices and release dates are TBA): 35372, **Soviet Army Fuel Truck "Ural-4320B"**; 35401, **Normandy, 1944 U.S. Paratroopers**; 35411, **Kosovo, 1999 U.S. Peacekeeping Forces** and 35421, **Normandy, 1944 British Commandos**. Items announced with no stock numbers are: **U.S. WWII Light Tank M2A2**; **U.S. WWII Light Tank M2A4** and **German Heavy Prime Mover (Schwerer Zugkraftwagen 18t.) SdKfz. 9 Famo**.

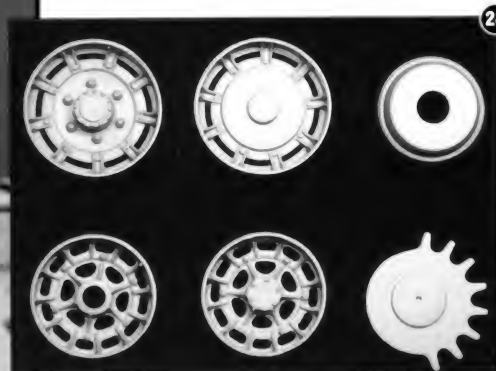
When we receive more information, we'll print it right here.

Junior Town Model

Junior who? These cats hail from down around Taiwan and they crank out a line of resin cast figures with some pretty interesting subjects. We have never reported on them before, so we thought we'd



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run the full list: JU 001, **Livestock**, \$16.95; JU 002, **Civilian Male**, \$19.95; JU 003, **Civilian Female**, \$19.95; JU 004, **Mother and Baby Carriage**, \$10.50; JU 005, **Mother and Baby**, \$10.50; JU 006, **Modern Girl**, \$10.50; JU BF001, **British Female Soldier**, \$12.95; JU GF001, **German Panzer Commander**, \$12.95; JU GF002, **"Participate" German**, \$12.95; JU GF003, **"Kiss Goodbye" German**, \$23.95; JU GF004, **Blitz Madchen 1**, \$12.95; JU GF005, **Blitz Madchen 2**, \$12.95; JU GF006, **Blitz Madchen 3**, \$12.95; JU GF007, **German Soldiers Resting (Eating) Set**, \$19.50; JU GF008, **Blitz Madchen 4**, \$10.50; JU RF001, **Russian Panzer Beauty**, \$12.95; JU RF002, **Russian Female Soldier**, \$10.50; JU RF003, **Dancing for Victory**, \$10.50 and JU RF004, **Russian Female Soldier**, \$10.50.

Junior town is yet another VLS exclusive.

K59

K59 is a small, but intense line of resin accessories from Hong Kong. They put themselves on the map with an exquisite detail set for the Alan Marder kit. Not exactly new, but still amazing is their K59002, **M3 Half-Track Wheel Set**. The set is composed of the drive sprocket and idler wheels. These baby's are super thin and super accurate—and they're completely cast in resin. Hubba, hubba! Assembly is simple and the set comes complete with a really terrific (but small) set of instructions featuring crystal clear B&W photos.

K59 is also R&J territory.

Mechanized Warriors

Mechanized Warriors, the armor and armor accessory aspect of the large figure line coughs up WA MW025, **Steyr Raupenschlepper Ost (RSO), Canvas Cover**. These two resin parts are designed for the Italeri RSO1/RSO3 kits and are significantly more developed than their previous soft-top release. The master patterns have been expertly sculpted to have the look and feel of real canvas draped over a metal frame. They put us in mind of



the sets available from Decal Star in Japan, but perhaps even nicer. The price is nicer, too, coming in at \$24.95. Keep 'em coming, dudes!

Model Victoria

Ahh, yes. We love to savor the fresh bouquet of new Model Vic stuff. As you may, or may not know, MV specializes in one thing only: WW2 Italian. This is one of the more passionate niches of our hobby. Take a deep whiff of MV4036, **Italian Road signs** and MV4037, **Italian Locality Road Signals**. These deceptively simple items contain accurate resin signposts, photo-etched signboards and gorgeous color decals. MV4038, is **Italian Kerbstones and Milestones**. These are those little marker stones seen on European roadsides. About a dozen are found in the box and the set also includes decals. MV4042, **Italian Semovente M40-75/18** is listed as a conversion kit, but much of it will also improve the heck out of the Italeri kit. A full upper super structure, gun, transmission, radios and a boatload of other accessories is included. MV4039, **Insignia for Italian tanks** and MV4040, **Insignia for Italian Semovente** are both

23. Harper Castings LVTA-1 crew gets busy with their bad selves. 24. The incredible M3 half-track sprocket and idler set from K59 productions. 25. One of many interesting civilian sets from Junior Town. 26. Model Victoria's new Italian road sign set.

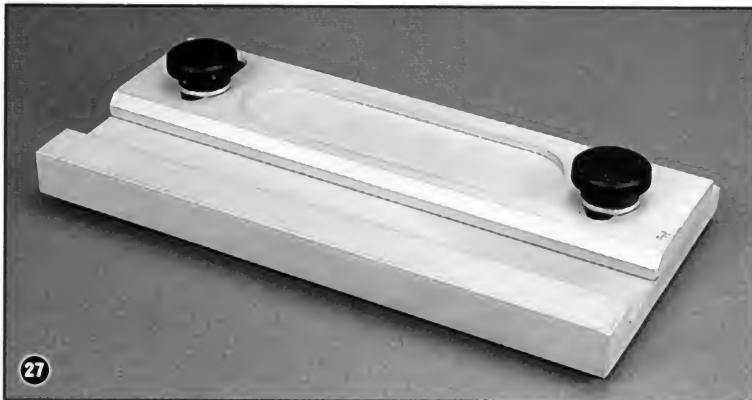
full-color decal sheets. MV4041, **Italian AFV Air Identification Markings WWII** is a set of pre-cut masking material to create the large color panels.

MV is represented in the U.S. by Chesapeake Models

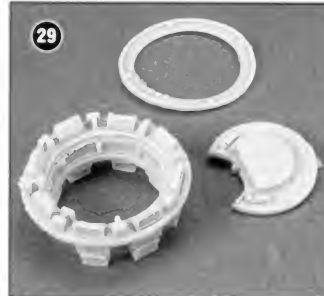
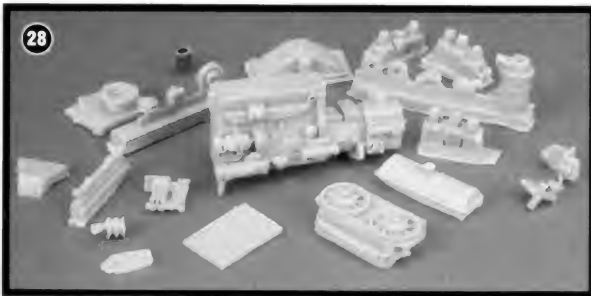
Designs and complete ordering information can be found in their ad located elsewhere in this publication.

MR Models

MR hails from Germany and we've brought you information on them before from time to time. The problem is that we often get new info directly from the manufacturer and their U.S. import agent (VLS) at different times. Well, the following list is a combination of the two sources and this will be our method from now on. One important note: the stock numbers listed contain the manufacturer's prefix "MR." When inquiring in the U.S. through VLS, the prefix is "MD." And now, the list. MR 60, **Sd.Kfz 251/9D Kanonenwagen Late Type**, \$42.95; MR 61, **Japanese 6-ton Trailer Isuzu Type 98 "Rokae,"** price TBA; MR 62, **Sd.Kfz. 251/22D "Pakwagen,"** \$45.95; MR 63, **Flammpanzer B2(f) German Char B1 bis Flamethrower Tank**, price TBA; MR 64, **Dutch Armored Car Panzerwagen DAF 39M (1940)**, including parts for captured Wehrmacht version, turret with interior and lathe-turned gun barrel for \$89.95; MR 65, **M1097 Hummer "Avenger" PMS Stinger AD Turret**, complete turret with



27. Panzer Meister's new link-to-link track jig. 28. The very handy (and timely) Maybach engine set from R&J. 29. R&J's equally handy cupola insert. 30. And it's about time: Mechanized Warriors excellent soft-top for the RSO tractor.



interior, armored cab, IFF panels, new bumpers, brush guards, rear stowage box for \$48.95; MR 66, ISU-T Recovery Tank Conversion for Zvezda ISU-122/152 kit, \$54.95; MR 67, M113 Swiss Army with add on armor, \$45.95; MR 68, Danish Army M113 A2 w/25mm Gun Turret, \$45.95; MR 69, Sonderanhaenger Ost 1-1/2ton for RSO Tractor for Italeri, \$58.95; MR 70, Russian Assault Howitzer SU-122I on StuG III C/D, \$44.95; MR 77, KV-1 Model 1940 (for Tamiya); MR 35100, PzKpfw II Lynx Detail Set, \$30.95; MR 35103, Detail Set Spaehpzzr 2 A1/A2 Luchs Bundeswehr, price TBA; MR 35122, Wheels/Detail Set Mercedes L3000S/L701, 2-hole rim, \$25.95; MR 35123, Wheels/Detail Set Mercedes L3000S/L701, 8-hole rim, \$25.95; MR 35124, Wheel Set for Historic Sd.Kfz 231/232 6 wheel armored car, \$25.95; MR 35125, Detail Set for Historic Sd.Kfz231/231 6-wheel armored car, \$27.95; MR 35126, M4

Sherman Road Wheels, pressed type with six reinforcements, \$19.95; MR 35127, M4 Sherman Road Wheels, Flush Type, \$19.95; MR 35128, M4 Sherman Road Wheels, 5 spokes, \$19.95; MR 35129, M4 Sherman Road Wheels, 5 spokes with covers (USMC), \$19.95; MR 35131, Japanese Light Tank Type 4 Ke-Nu, \$25.95; MR 35132, Weisel Airborne Tank Crew (2 figures), \$24.95; MR 35133, Wheels and Conversion Set for Historic Sd.Kfz 231/232 Magirus Type, \$25.95; MR 35134, Jack & Tools for Panzer I & Panzer II, \$17.95; MR 35135, SFOR Leopard 2A5 Crew, \$19.95; MR 35146, Matilda 2 Frog for Tamiya, price TBA; MR 35147, Matilda 2 CS for Tamiya, price TBA; MR 35148, Matilda 2 40mm for Tamiya, price TBA; MR 35149, Matilda 2 Turret for Tamiya, price TBA; MR 35150, Matilda 2 for Tamiya, price TBA; MR 35155, VW Type 60 for CMK, price TBA and MR 35156, MAN 10-ton truck wheel set for Revell, price TBA.

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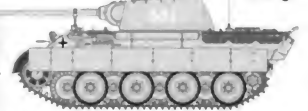
AR35159 PANTHER Ausf A MIX #1
Grossdeutschland

Builds four vehicles.
Marking placement, stowage, and color/camo information included.



AR35160 PANTHER Ausf A MIX #2
"Wiking"

Builds two vehicles.
Marking placement, stowage, and color/camo information included.



AR35161 PANTHER Ausf A MIX #3
Grossdeutschland and Unknown Eastern front

Builds three vehicles.
Marking placement, stowage, and color/camo information included.



AR35162 PANTHER Ausf A MIX #4
Captured Russian & "Totenkopf"

Builds three vehicles.
Marking placement, stowage, and color/camo information included.



AR35163 PANTHER Ausf A MIX #5
Leibstandarte "Adolf Hitler"

Builds vehicle shown.
Marking placement, stowage, and color/camo information included.



AR35164 PANTHER Ausf A MIX #6
Herman Göring Division and Hitlerjugend

Builds two vehicles.
Marking placement, stowage, and color/camo information included.



AR35165 PANTHER Ausf A MIX #7
I./Pz.Rgt. 4 Italy, 1944

Builds two vehicles.
Marking placement, stowage, and color/camo information included.



AR35166 PANTHER Ausf A MIX #8
Pz. Lehr (no other information available at press time)

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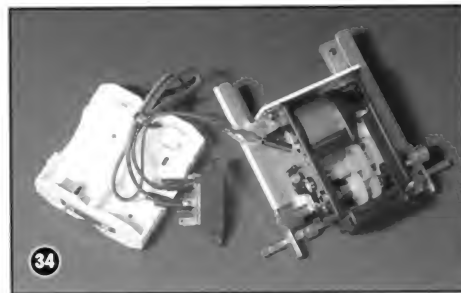


33

New Connection

New Connection, wacky German resin manufacturer extraordinaire, has given us a brief glimpse of a few of their upcoming items. This is just a taste; no stock numbers, prices or release dates were made available.

NC will be producing a full kit of the **Henschel VK**



34

31. The cool Tiger duffel bag from Tamiya. 32. Hey! There's a Tiger in there! 33. The supplemental engine deck screens for the 1/16th scale Tamiya Tiger. 34. This is the only motorized element left in the "static" version of Tamiya's Tiger kit. 35. Memories... Our old friend, the Tamiya Walker Bulldog. 36. One of two extensive new Tiger decal sheets from Techmod.



35

37, 38. Tech Star's new etched sets, Allied web gear (above) and German web gear (bottom). 39. A box of sticks! Cool! Woodland Scenics keeps you off your knees with this handy product. 40. A glimpse of the very competent pre-colored foliage from Woodland.

3601. This was one of the prototypes of the Tiger I and was covered in the Panzertracts teaser in issue 25. They will also produce a **recovery version of the VK 3601**. A very comprehensive **early Brummbar conversion** is also planned. This will be designed for the Italeri kit and include a full interior.

For more information on these items or other products in the New Connection line, see their web site at www.new-connection.de

The Panzer Meister

This brand new item is a simple, yet ingenious **jig to aid in the construction of non-workable link-to-link tracks**. The jig provides a fast and easy way to position and hold individual link-to-link tracks for assembly and gluing. It is comprised of a base plate with a fixed edge on one side and a sliding top plate fixed to the top via two cap screws. Together, they form an adjustable width trough that holds the track links in place for gluing. The size of the jig is based on the length of common WW2 AFVs and is adequate for almost all common tanks. A BUB (Big Ugly Bastard) model for such oddballs as the T35 is also available. This one is about 11 inches long and will handle a complete run of tracks for over-size vehicles. The top of the sliding plate contains a milled out section that provides a convenient place to store a supply of loose track links.

The base plate is fitted with two hardened steel inserts, into which the cap screws are threaded. There is no way the base can be stripped by repeated use.

The jig is currently selling for \$44.95, plus \$4.00 shipping and handling for the standard model. The larger BUB version is slated at \$59.95, plus \$4.00 shipping and handling.

For more information contact the maker of the Panzer Meister, Kevin Thomas, 1400 W. Henry St., Sedalia, MO 65301.

Real Models

Real Models, super prolific Czech manufacturer is cracking out the following long list of resin items.

35080, **Reactive Armor for SKIF BMP-3**, \$58.95; 35081, **M15A1 Conversion Set** for Tamiya, price TBA; 35082, **International M-5H-6 conversion** for Zvezda Zis-151, \$52.95; 35083, **M936A2 5-ton Wrecker conversion set** for Big Foot, price TBA; 35084, **M62 5-ton Wrecker conversion set** for US 5-ton Truck, price TBA; 35085, **Diamond T 981 (M20)**, price TBA; A35047, **Wheels for Tamiya FAMO, English Type 1**, \$11.95; A35048, **Wheels for Tamiya FAMO, English Type 2**, \$11.95; A35049, **Wheels for Tamiya FAMO, English Type 3**, \$11.95; A35050, **Wheels for Tamiya FAMO, German Type**, \$11.95; A35051, **Wheels for Tamiya Sd.Ah 116, German Type**, \$29.95; A35052, **Wheels for Tamiya Sd.Ah 116, English Type 1**, \$29.95; A35053, **Wheels for Tamiya Sd.Ah 116, English Type 2**, \$29.95; A35054, **Wheels for Tamiya Sd.Ah 116, English Type 3**, \$29.95; A35055, **Canvas for Tamiya Sd.Ah 116**, \$15.95; A35056, **Canvas for Tamiya FAMO**, \$23.95; A35058, **Cargo for Italeri Big Foot**, \$26.95; A35059, **Cargo for Tamiya FAMO**, \$26.95; A35060, **Continental Wheels for MAN 5-ton**, \$13.95; A35061, **Continental Wheels for MAN 7-ton**, \$15.95; A35062, **Continental Wheels for MAN 10-ton**, \$17.95; A35063, **Michelin Wheels for MAN 5-ton**, \$13.95; A35064, **Michelin Wheels for MAN 7-ton**, \$15.95; A35065, **Michelin Wheels for MAN 10-ton**, \$17.95; A35066, **Cargo for MAN 5-ton with new platform**, \$29.95; A35067, **Cargo for MAN 5-ton with new platform**, \$31.95 and A35068, **Canvas for US Big Foot**, 2 pieces, price TBA.

Real resides completely within VLS Land and you can find them there.

R&J

R&J still offers a modest line of its own products. These are all resin items and are simply packaged in a poly bag and card. 35210 is a simple

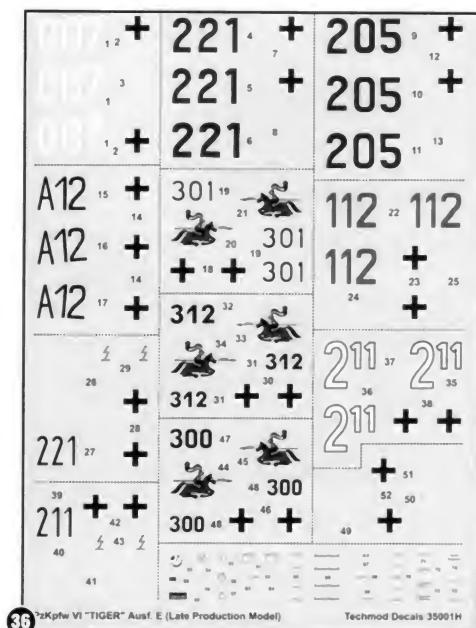
Panzer IV driver's compartment. This is a drop in module that fits all Pz IV hulls by DML, Gunze, Italeri and Tamiya and it's just enough detail to see through the hatches. 35238 is a **Commander's Cupola insert**. It will fit the Panzer IV, StuG IV and Jagdpanzer IV and it features a full set of periscopes below the hatch ring. 35251, is a particularly useful **Maybach HL42 Engine set**. This is suitable for use on any SdKfz 7, 11, 251 or SWS half-tracks, which means your brand new AFV Club kit.

Tamiya

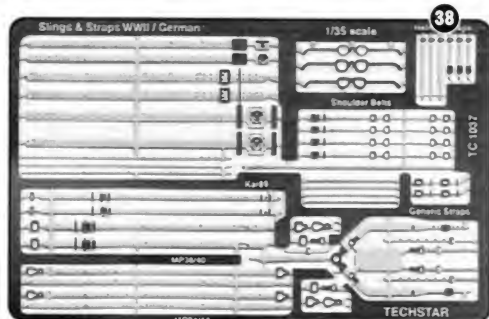
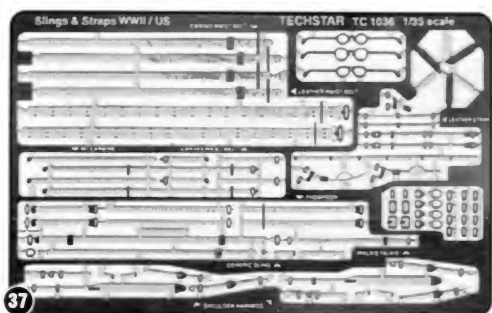
Wow! What is up with these guys? The big T has remained ultra tight-lipped about all of their Nuremberg Toy Fair releases, even on the eve of the show. Here's what we know for sure. 35252 will be **German King Tiger "Ardennes Front."** It is the same production version of the Tiger II, but this time around it comes packaged with two new crew figures and the DKW motorcycle with a rider. Smashing new box art covers it all up (see lead photo). This might be one to have just for the box. 35253 will be a **German Schwimmwagen figure set**. We don't know what this will be exactly, but we think it's safe to assume it will be figures for the Tamiya kit!

Also confirmed for the show, but un-numbered as of press time, are two additional 1/35th scale items. The first will be the **Marder III M**. This is the version of the Marder with the 7.5cm Pak 40 installed at the rear of the vehicle. The next item is a head scratcher. Tamiya will release its own version of the **Pershing**. No word yet on the exact variant (wait, it gets even better).

In the "I wonder why" category are 30043, **M41 Walker Bulldog** (motorized) and 30044, **M42 Duster** (motorized). Both of these are unchanged re-releases of their 30-year old kits and by today's standards they can only be called "dogs." But, there is that cool box art.



Tamiya has released the static version of their 1/16th scale Tiger I. This is 36203, **German Tiger I Early Production (Display Model)**. Oddly, it does not include any new plastic parts. It is simply the first kit attractively packaged inside a cool-looking black duffel bag. The duffel even features the stalking Tiger logo. A basic gearbox replaces all the complicated innards and a new figure rounds out the model. Check out our extensive photo presentation of this kit. The price on this is \$409.00 and the release date is TBA.



To go along with the display Tiger, there is now a single after market item. This is 49209, **Tiger I Photo-Etched Grill**, a large sheet for the back deck. The price on this item is TBA.

Perhaps the biggest news this time around is the announcement of a nemesis for the 1/16th scale Tiger in the form of 56014, **U.S. Medium Tank M26 Pershing**. This will feature all of the R/C goodies included in the Tiger kit and it will generally be considered cool.

We'll bring you more information as it becomes available. Periodic web site watching can also be beneficial. See them at www.taniva.com

Techmod

Techmod has popped out two new decal sheets for the Tiger tank. 35001, **PzKpfw VI "Tiger" Ausf. E** (late production model) is decals for twelve tanks, plus color plates and comprehensive instructions all for \$8.99. 35005 is **PzKpfw VI "Tiger" Ausf. E** (early production model) is decals for ten tanks, plus color plates and instructions for \$8.99.

Technod is imported into North America by Air Connection of Canada and these sheets can be found there or at better-stocked shops and mail order houses.

Tech Star

Tech Star is the photo-etch arm (would that hurt?) of VLS and they have the following etched sets up and running. 1036, **Allied Straps, Weapon Slings and Eyeglasses**, \$11.95; 1037, **Axis Straps, Weapon Slings and Eyeglasses**, \$11.95; 1038 **Allied Straps, Weapon Slings And Eyeglasses**, \$14.95 and 1039, **Axis Straps, Weapon Slings and Eyeglasses**, \$14.95.

Verlinden

VP's latest list looks like this: 1722, **Aus der Traum**; 1724, **The Bridge**; 1725, **Wooden Bridge Section**; 1727, **German WWII Supply Dinghy**; 1728, **Mounted Bedouin**; 1729, **Cal.50 Machine Guns 4 Complete Cal.50's + 5 spare ammo boxes**; 1730, **Character Heads (15 All new)**; 1731, **Jeep Riders**; 1732, **Give it up Jerry**; 1734, **Pz III Tank Turret Bunker**; 1735, **Cal.30 Machine Guns 4 Complete Cal.30's + 5 spare ammo boxes**; 1737, **US Marines Pacific WWII Set I**; 1738, **Bedouin with Camel**; 1740, **Sherman Damaged Road Wheels**; 1742, **The last Party Set 1 (2 Fig. & Piano)** and 1743, **The last Party Set 2 (3 Figures, accessories, table & chair)**. That wooden bridge is just this side of genius. The complete kit (1724) comes with one section of bridge to install between two banks, while the single section (1725) can act as a module to extend the first kit as long as you wish. Pretty cool. The spankin' new **2002 Verlinden Productions Catalog (No.18 - 2002)** is also now available.

For more skinny on all VP products, see their web site at www.verlinden-productions.com

Woodland Scenics

Here's someone you don't really think of when building armor. Woodland Scenics is better known for its model railroad accessories. They have been keeping us up to date recently of many of their new products and you, like us, just might be surprised. F177, **Flowering Foliage Purple** and F176, **Flowering Foliage Yellow** (\$2.98 each) are both small bags of colored material that can be sprinkled onto static grass to simulate wild flower growth. These could also be added to branch structures to represent flowering foliage.

S30, Dead Fall (\$3.98) is very cool. This is basically a box of sticks and twigs, but as such, they are naturally shaped little dead trees or forest debris. A variety of sizes are provided and paying \$3.98 sure beats crawling around on your hands and knees in the backyard!

F1132, Fine-Leaf Foliage, Light Green, is essentially little trees in a box. These are a great buy at \$10.98. The trees are natural branch shapes and although calling them "trees" is probably more appropriate for HO or 1/48 scale, they would make outstanding bushes in 1/35th scale. They are pre-colored and require no painting.

FC683, **Clump-Foliage, Medium Green** (\$4.98) and TR1122, **Tree Armatures** (\$9.98) are designed to be used together to make small trees.

Item S194, **Canister Shaker** is a handy con-



tainer to make up your mix and start shaking with no mess for \$3.98.

Two adhesives are available for all this fun. S190, **Scenic Glue Multi-Use Adhesive** is \$5.98 and S195, **Hob-e-Tac Adhesive** is \$4.98. These are both white-glue type adhesives and both dry clear. The Hob-e-tac remains tacky for a longer time.

Woodland Scenics has a terrific web site. We highly recommend that you check it out. It is very easy to navigate and contains the full product catalog on line. See it at www.woodlandscenics.com

Book Reviews

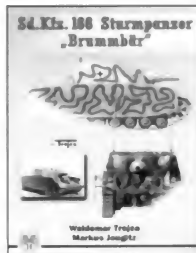
Sturmgeschütz III Ausf.G
Armour Walk Around Number 2
 by Tom Cockle
 Squadron/Signal Publications
 Soft Cover
 79 pages, B&W and color
 ISBN 0-89747-434-1
 \$14.95



OOPS—THEY DID IT AGAIN—they re-released a book—and it's full of StuGs. [STOP THAT RIGHT NOW!] Sorry, there's a new Squadron book in town, partners and this here one's a doozy. It's in their Walk Around series and it is stuffed with tons of close-up detail pictures of the various StuG models. Mongo build StuG, Mongo like this book. Mongo think book is good. Mongo buy book. Get it?

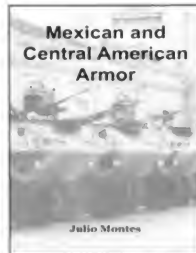
Sd.Kfz.166 Sturmpanzer Brummbär
 by Waldemar Trojca and Markus Jaugitz
 J.J. Fedorowicz Publishing Inc.
 Soft Cover
 88 pages, B&W with 2 color pages
 ISBN 0-921991-64-9
 \$26.00

HEY, WAIT A MINUTE. A SOFT COVER FROM FEDOROWICZ? THIS can't be. They only do massive and expensive hard covers, right? Just what the hell is going on? Help us! OK,



calm down. This is a rare departure for the wild men from the Great White North and as such it brings us a single subject, the good 'ol Brummbär. The Fedomingos have gathered up a rare selection of wartime shots of particularly good quality. There are even several close-ups of the vehicle (wartime model geeks?). Shots of the Kubinka vehicle round them out and the dish is topped with a tasty selection of line drawings and color renderings. Bon appetit!

Mexican and Central American Armour
 by Julio Montes
 Darlington Productions
 Soft Cover
 165 pages, B&W with 8 color pages
 ISBN 1-892848-08-2
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AFVs are fascinating.

Nuts & Bolts
"Marder III"
 by Volker Andorfer, Martin Block and John Nelson

AND YOU THOUGHT THERE WERE no new subjects to write about. This comprehensive soft cover manages to tell a very interesting story, as well as showcase some very unusual armored vehicles. There appear to be few truly indigenous armored vehicles in this region and the permutations of some very familiar

Soft Cover
 104 pages, B&W with color plates
 \$34.00



WE'VE CHECKED THE THESAURUS and there are absolutely no more words of praise to heap on this excellent (oops) series of booklets on German armor. The bugger couldn't be more timely, though, with a slew of aftermarket products flooding in to augment the Tamiya kit. Like all the latest titles in the series, this one is packed with wartime shots and color plates, plus information on markings and development. Last guy to get one is a Sturmgeschütz!

Schwimmwagen in detail
 by Frantisek Koran, Ladislav Rojka & Ivo Pospisil
 Wings and Wheels Publications
 Soft Cover
 48 pages, color throughout
 ISBN 80-86416-12-7
 \$20.00



QUICK, GET OUT YOUR *Modeler's Guide to the Kübelwagen* and pencil in this reference on page 80. We recommended the WWP volume on the Kübelwagen, and are pleased to recommend this one as well.

Presented for your study is several meticulously restored Schwimmwagens with full color detail shots, including the transmission and engine. WWP knows exactly what you're looking for in reference photos, and this book's a home run.

60902



A fine day for a figure

63133



63305



60902 German Grenadier
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63130 Snow Patrol (2) 1/35 scale

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63137 "What's Cookin'?" (4 figures) 1/35 scale

63305 U.S. Tank Commander
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0014	T-23 turret, oval hatch with aluminum barrel	17.00	0069	M4A3E2 Jumbo hull-complete	16.00	FS3501	50 caliber M2 machine gun with M31 truck mount	6.00
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Please Note: Our Sherman hulls are designed to kit bash with the Tamiya Sherman kits on the market. Those marked with open deck are for use with the Tamiya decks in their M4. Those not marked with open deck are cast-closed. Our M4A2 & A3 conversions have their own deck plate.

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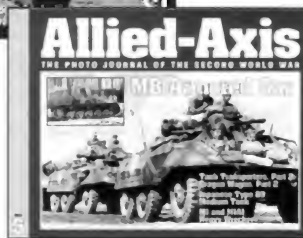
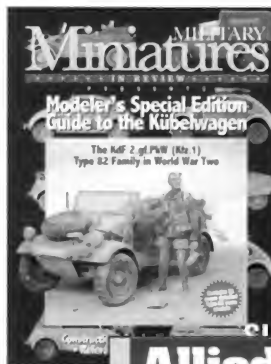
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BD35009.....	M68 105mm rifled gun
BD35010.....	Kwk36L/56 88mm gun (Tiger I)
BD35011.....	2A46M 125mm gun (T-80)
BD35012.....	L55 120mm gun (Leopard 2A5)
BD35013.....	M284 155mm gun (M109A6)
BD35014.....	M126 155mm gun (M109G)
BD35015.....	M185 155mm gun (M109A2)
BD35016.....	73mm gun (BMP-1)
BD35017.....	D-10T2S 100mm gun (T-54B)

輝
煌

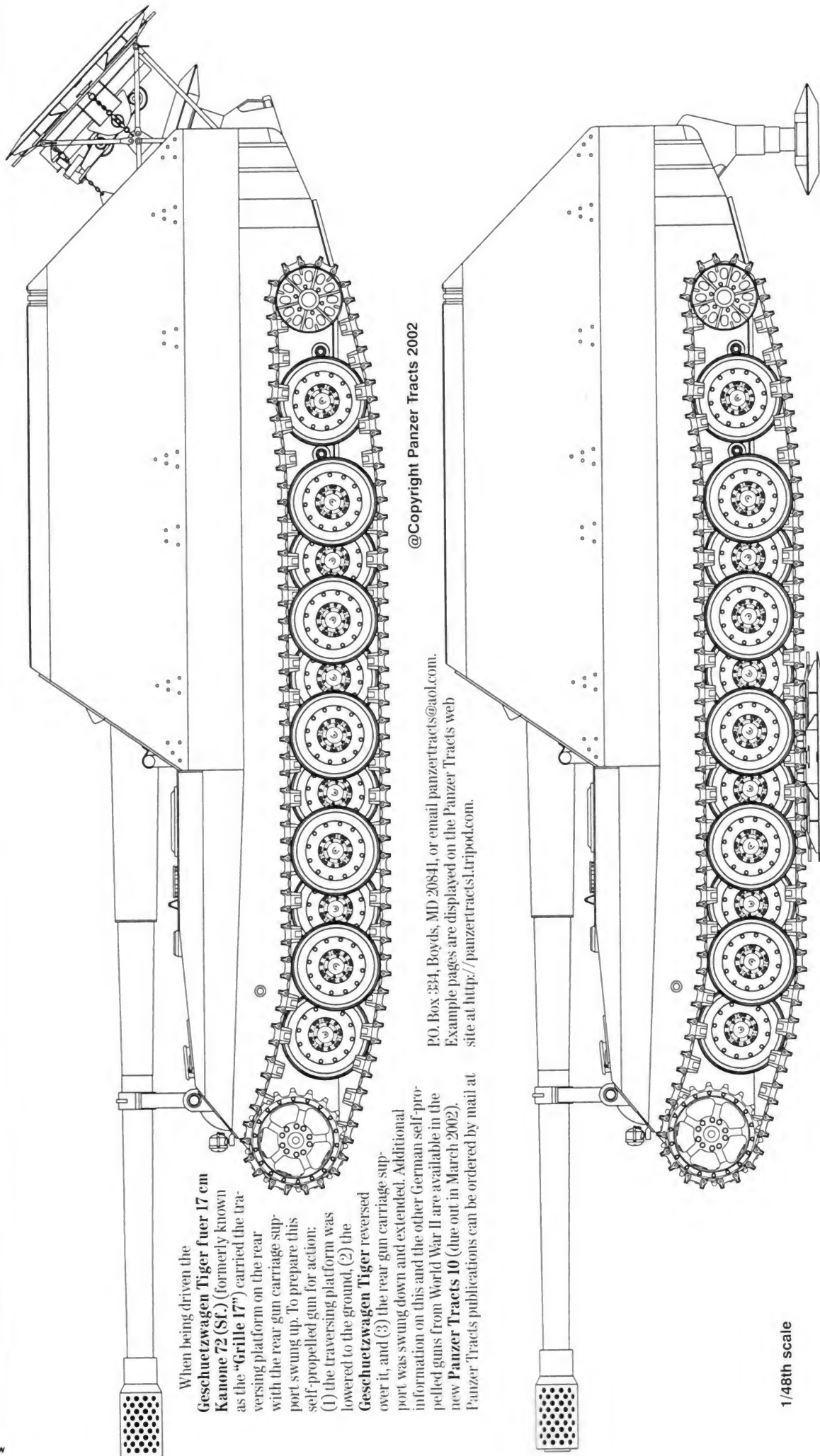
GESCHUETZWAGEN TIGER FUER '17CM KANONE 72 (SF)

by Thomas L. Jentz and
Hilary Louis Doyle

When being driven the
**Geschuetzwagen Tiger fuer 17 cm
Kanone 72 (SF)** (formerly known
as the "Grille 17") carried the tra-
versing platform on the rear
with the rear gun carriage sup-
port swung up. To prepare this
self-propelled gun for action:
(1) the traversing platform was
lowered to the ground, (2) the
Geschuetzwagen Tiger reversed
over it, and (3) the rear gun carriage sup-
port was swung down and extended. Additional
information on this and the other German self-pro-
pelled guns from World War II are available in the
new **Panzer Tracts 10** (due out in March 2002).
Panzer Tracts publications can be ordered by mail at

P.O. Box 334, Boyds, MD 20841, or email panzertracts@aol.com.
Example pages are displayed on the Panzer Tracts web
site at <http://panzertracts.tripod.com>.

@Copyright Panzer Tracts 2002



1/48th scale

Schwere they come!

Hey man! Have we got a preview for you!



At the beginning of May 1943 the first complement of 45 Ferdinands was entrained for schwere Panzerjäger-Abteilung 654. In this picture, a tank destroyer on its way to the loading ramp. (Jaugitz)

We have had a sneak peek (albeit electronically) at the next Fedorowicz über title. The new title is *The Combat History of schwere Panzerjäger Abteilung 654, In Action in the East and*

West with the Ferdinand and the Jagdpanther by Karlheinz Münch. This massive new work covers the entire history of the division from its origins right through the end of the war.

This title is easily the equal of the earlier Fedorowicz title on the 653. The 640-page book contains hundreds and hundred of photos. The subjects run the gamut of tank destroyers; from a few shots of the elusive "Dicker Max," to Elephants, Jagdpanthers and Panthers. A ton of great maintenance stuff weighs in, too with FAMOS, Fries gantries and crane trucks. The book is also loaded with documents and organizational diagrams. This is topped off with crisply rendered line drawings and large color wartime photos. These color shots are especially rare. The range of sources the author used for his photos impressed us to no end. Both the German and the French archives were tapped, but the major allied sources were also accessed to give you a view of knocked out and abandoned vehicles. However, we should stress that the majority of the images are from the veterans (including the color stuff) and as such, they are rare. Of the photos in the book only a scant few were familiar. Get this one while you can!



Shortly before the fighting at Kursk and Orel, the crew of Ferdinand 501 had its photo taken. The officer wearing the visor cap and the Individual Tank Destruction Badges on his right arm is Oberleutnant Wilde, the commander of the I./schwere Panzerjäger-Abteilung 654. (Eichler)



Above: The maintenance company at work! Two Ferdinands stand by after being repaired to have their fighting compartments reinstalled. (Schuller)
Left: This photo shows a vehicle commanded by Hauptmann Noak, who was severely wounded by mortar-round shrapnel after he left his disabled tank destroyer on the afternoon of July 5, 1943. A Panzer III summoned to the site carried the wounded battalion commander back to the main lines. (Jaugitz)



Above: The first eight Jagdpanthers arrived at the battalion's location on May 4, 1944. All of the vehicles had the one-piece barrel, the dual driver periscopes and the factory-applied coat of Zimmerit. They all had been painted a sand-yellow color and were given a coat of camouflage by the maintenance platoon. (Harting) Inset: An excellent shot of a late model Jagdpanther (note the thicker mantlet collar) of 2./schwere Panzerjäger-Abteilung 654. Unteroffizier Muckisch is in the commander's cupola. (Harting) Below: This fascinating shot shows two Jagdpanthers of the 3./schwere Panzerjäger-Abteilung 654 during the retreat in France. A Monsieur Ph. F. Watteuw in Beauvais took the picture. The number of the towing Jagdpanther cannot be determined because of the tarpaulin. The towed tank destroyer, Jagdpanther 332, was steered by Gefreiter Sturm. (Watteuw via Jean Restayn)





*Left: This photo depicts operations in the Forêt Domaniale de la Harth in the fall of 1944. Here, the unit is responding to a report that forty enemy tanks had been reported. Hauptmann Lüders shows his crews where to take up positions. (Schuback)
Below: The arrival of elements of the I./schwere Panzerjäger-Abteilung 654 in Gummersbach on September 10, 1944. The early pattern vehicle shows the square-type zimmerit pattern. Note the wires strung across the front of the superstructure and the beat-up nature of the left fender. (Pflug)*



Gotta whole lotta Leib

RZM'S LONG AWAITED TITLE TAKES SHAPE

You remember the Kharkov story, right? This was an epic eastern front battle that involved an entire SS Panzer Corps. This Corps was the stomping ground for dozens of SS personalities such as Kurt Meyer, Jochen Peiper and Fritz Witt. The new RZM title will feature a whopping 515 Duotone images, many never seen before. To top it all off, the 296 page book will also contain 8 detailed maps and 8 color portraits. It's a good time to like German stuff!

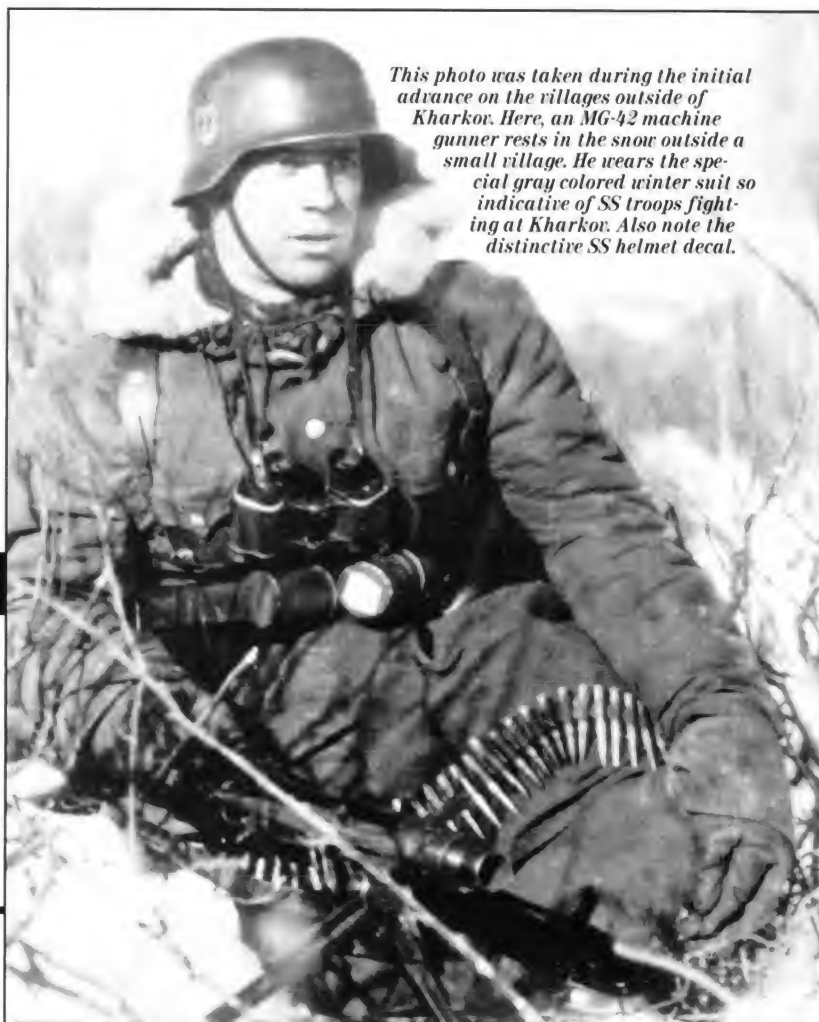


Platz der
Leibstandarte

THE SS PANZER GRENADIER DIVISION "LSSAH"
AND THE BATTLE OF KHARKOV
JANUARY-MARCH 1943



GEORGE NIPE & REMY SPEZZANO



This photo was taken during the initial advance on the villages outside of Kharkov. Here, an MG-42 machine gunner rests in the snow outside a small village. He wears the special gray colored winter suit so indicative of SS troops fighting at Kharkov. Also note the distinctive SS helmet decal.



Leibstandarte was one of the first units to receive the very early G version of the Sturmgeschütz. One such vehicle is seen here. The assault gun has a variety of specialized storage structures mounted on the hull. This includes a special storage rack on the rear engine deck and a spare track and wheel holder on the right side of the upper hull. This StuG also has a custom-made mount for a MG 34 on the right of the hull roof. This appears to consist of a metal rod and a circular base. The build-up of snow and ice on the suspension is interesting.



Left: Another shot illustrating the approach to Kharkov. This 251 half track is using a small structure for cover as it cautiously moves forward. The commander is scanning the terrain ahead before breaking cover. The hull of this 251 has been roughly camouflaged with whitewash. This vehicle also retains its all weather cover, although it has been pushed forward on the upper hull. Note the ring sight on the rear mounted MG 34. Below right: A fine portrait of Kurt "Panzer" Meyer taken in a small village outside of the city. He wears a unique one-piece coverall and the garment is completely "badged" with all of his relevant insignia and medals. His well-worn peaked cap is also evident. Below: In preparation for making a drive through the city, Jochen Peiper's half track battalion was reinforced by several tanks. Here, a Panzer IV, Ausf. G moves past a 250 half track. On March 11th, after capturing a key bridge, the battalion reached Red Square, making contact with Fritz Witt's regiment and pushing through the city to relieve Kurt Meyer's battalion.





Above: Shortly after the dawn of March 18, Peiper sent out a detachment to conduct a combat reconnaissance of the terrain and Russian positions. This photo provides an excellent view of the distinctive LAMV tactical insignia. Behind the 250 half track, two Marders self-propelled guns can be seen. Below: Shortly after dawn on February 12th, Peiper's Kampfgruppe thrust through Soviet occupied territory to the banks of the Udy River at Krassnaja

Poljana. During the drive this 251 half track became immobilized by a build-up of snow underneath the front wheels. The front axle of the 251 was not powered and was essentially pushed along by the rear tracks. This vehicle also sports a number of stowage boxes and other gear on its exterior. Two short lengths of track have been attached to the front glacis plate.



Godzilla's Mosquito

BUILDING THE TAMIYA JAPANESE TYPE 61 MBT

All photos, Jim Hensley



Like most Japanese armor, including the post war designs, there is very limited information available in English. The Type 61 is no exception and the fact that it is being phased out of the inventory does not help. What I did manage to dig up is that the Mitsubishi Type 61 Main Battle Tank was the first Japanese post-war tank to be designed and built by the Japanese. The design began under the direction of the Ground Armaments Directorate at the Technical Research and Development Headquarters of the Japanese Self-Defense Force in 1954. The tank was primarily designed around the 90mm main gun. Additional requirements included the ability to maneuver on narrow Japanese roads and be rail transportable. Apparently, the rail transport requirement inflicted severe width and height limitations, because of the narrow railroad tunnels in Japan.

The first four prototypes of the tank, two ST-A1s and two A2s, were completed in 1957. After the

initial tests, 12 more prototypes were built with the last 10 ST-A4s being almost identical to the production tank. In April 1961, this tank was accepted into service as the Type 61 Main Battle Tank (MBT) and the first production tanks were completed in 1962. I believe the Type 61 is still used by the Japanese Ground Self-Defense Force, but the Type 74 and Type 90 MBTs have mostly replaced it.

Total production amounted to about 560 tanks, plus several variants. The variants included a bridge tank, an engineer tank and an ARV. When retirement began in 1983, the Japanese Ground Self-Defense Force still had 559 Type 61 MBTs on-hand. The last I could find of it was that as of 1996, the total was down to fewer than 200. I am sure there are a lot fewer now, if in fact they are not totally gone.

The main gun of the Type 61 is, oddly enough, also called a Type 61 90mm rifled tank gun. It makes you wonder if the Japanese have a limit on the number of new things they can come out within the same year!

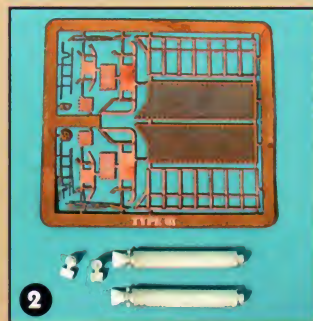
Just how many Type 61s or Type 74s or whatever can you have without getting totally confused? The Type 61 gun was manufactured by the Japan Steel Works Ltd. and is a copy of the U.S. M3A1 90mm gun. The barrel is fitted with a fume extractor and T-type muzzle brake. There is also a coaxially mounted 7.62mm M1919A4 machinegun and a 12.7mm M2 machinegun mounted in the commander's cupola. The tank has a crew of four and is powered by an air-cooled V-12 cylinder diesel engine capable of 450 hp and providing a top speed of 45 km/h.

Which kit to use

The Tamiya kit has been released in at least two versions, both of which I happen to have. The older kit was a motorized kit, which actually included the motor. I think it might be a collector's item, but since I don't collect kits (that's what I tell my wife, anyway), I used it for parts. This old kit is obviously one of Tamiya's earlier efforts and the quality just does not match the newer kits. The older kit has the kit number 129. The newer kit, number 163, the one I used for this article, still has the holes for motorization—without the motor, of course. Another change was the addition of a second, optional barrel. The first kit did not have a cover for the mantlet, while the new kit has both. There is also a new figure,

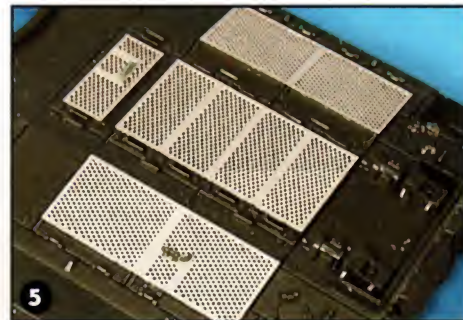
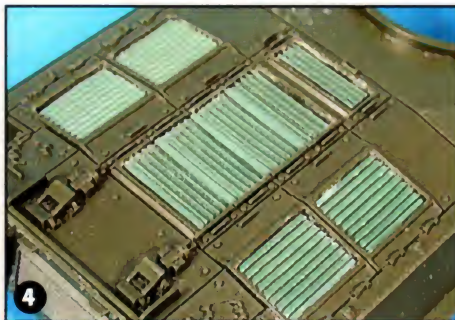
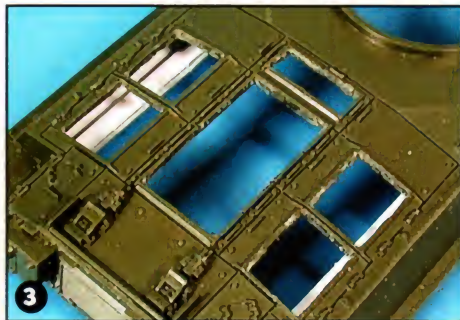


1



2

1. This is the Ordnance Models kit #2, which provides resin grills and photo-etch screens. 2. The Ordnance Model set #1, which provides new mufflers in white metal and photo-etched parts to improve the like.

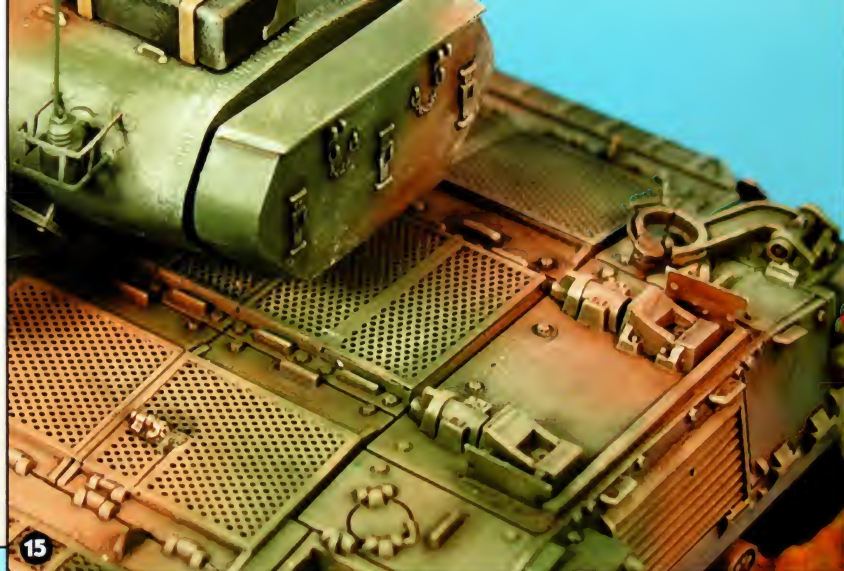


3. The grills were drilled out first with a Dremel drill then, using a knife, the remainder was removed and smoothed out with files. 4. Here the resin grills have been glued into their holes. They are recessed just a little. 5. The screens are a little thick, but look pretty good when complete. The little latches were the most difficult parts. They are provided in resin, but you can also cut the ones off the removed grill sections. 6. The front section of the muffler cover is all that is kept from the kit. It was sawed off and then glued on. Next, the white metal muffler was cleaned up and glued on. 7. The photo-etch screen comes in two pieces that must be glued together first. It is bent to shape, but not glued on until after painting. 8. The kit's marker light and horn were replaced with white metal ones and photo-etch covers. The fender supports were easy after removing the molded-on support. There is a photo-etch set of covers for the main lights, but they were too small to fit. 9.



10. ModelKasten provided new hubs, but I am not sure why. They are identical to the kit ones, except they are hard plastic, instead of vinyl. I ended up using the poly caps because they stay on better. 11. The turret required some filling around the rear parts where the fit was not great. The two vision black guards are from the Ordnance photo-etch set. 12. The antenna mounts were drilled out to accept piano wire antennas later. Ordnance Models photo-etch guards were used. Interestingly, Tamiya did not include these fairly prominent guards in the kit. 13. The kit being prepared for a good washing before the painting began. Note the muffler guards and roadwheels have been removed and will be painted separately.





14. After the tank was painted, the muffler guard was removed and the muffler was painted panzer red brown, then the guard was then glued back on. 15. The tank was first painted in field gray, then the camouflage of flat earth was sprayed on. Normally, I paint underneath the grills before gluing on the screens, but this time I left them unpainted and the results were the same. 16. This is the mantlet cover provided in the kit. On the right side of the cover there is supposed to be a hole covered by clear Plexiglas for the sight. I drilled it out and filled it with Microscale Kristal Kleer. 17. The bumper decals were all given a good coat of Solvasel, then the whole tank was given a coat of semi-gloss to seal everything before the weathering began. The tow cable is a replacement. The cable was just the right size for the mount points.

and was not near as hard as I had expected.

The hull top was then glued onto the bottom. The fit was very good and only a little filling was needed. The two mufflers on the back were the next items to convert. Tamiya provides a one-piece screen with the muffler molded in it. To modify this I first cut off the front of the two guards, parts A28 and A29. The remaining front pieces were then glued to the chassis. The rear parts were replaced with two-piece photo-etch screens. The mufflers, which are white metal, were cleaned up and glued on to the hull. I did not glue the screens on until after painting so I could paint the mufflers separately.

The other items, like boxes and tools, were then glued on around the chassis. The twin headlights were all drilled out for MV lenses. The Ordnance set has a new marker light and horn/siren with photo-etch covers, which replaced the kit's one-piece

affair. There are also photo-etch parts that are supposed to replace parts A20 and A21, the large covers for the two main light sections. They were too small, so I discarded them. I did thin down those covers a little before gluing them on.

Working on the turret

The turret was next. As mentioned, Tamiya furnishes you with two choices of gun barrels. One has a mantlet cover and the other does not. I actually had a very good replacement barrel for the gun made from brass by Dobiesz, but it would only work with the uncovered mantlet. The problem is I really like the tank with the mantlet cover and all my reference photos show the Type 61's with this cover. So I went with the kit barrel and put the brass barrel aside to use with the older kit, if I ever build it. The barrel was glued together and cleaned up, then glued on the mantlet. On the right side of the cover there is supposed to be a hole covered by clear Plexiglas for the sight. Although it is molded shut, I decided to drill it out and fill it with Microscale

smoke grenades for the rear of the turret and the tow cable is string, instead of soft plastic. The newer kit is cast in medium green plastic, whereas the older kit is a dark olive drab. Both kits, of course, include decals and rubber band tracks. Unfortunately, I got the new kit second hand and the decals were missing.

I included all the aftermarket items that I could find, which includes two sets from Ordnance Models. One set is primarily for the grills on the rear deck and it consists of resin and photo-etch parts. The other is a small, photo-etch set that also has white metal mufflers, a horn and marker lights. Last, but certainly not least, is the ModelKasten workable track set for the Type 61.

Easy detailing

The lower hull and suspension system was tackled first. All the roadwheels, idlers and drive sprockets were cleaned up and glued together. I left all the roadwheels off until after painting. Most of the suspension parts are actually molded onto the lower hull, so there is not a lot to do. The good 'ol, ever-present open sponson holes were filled using sheet styrene.

I knew the biggest challenge in building this kit was going to be installing the engine grills on the rear deck from the Ordnance conversion kit. I cut out all the grills using my Dremel tool, then cut out the rest by hand. I then glued in the resin grills. The last step was to glue on the photo-etch screens and add a few little bits, like the latches for the compartments. The resulting conversion looked pretty good



Here it is all done and on the base. The tool handles were painted with Vallejo medium flesh and the metal parts with black gray. The metal parts were then dry brushed with Rub-n-Buff silver. The vision blocks were painted with metallic blue, which I had never done before. I really liked the results.



Kristal Kleer. The turret was glued together and all the different parts were glued on. I drilled out the machine gun barrel of the 127mm, but otherwise built it straight from the box. I also drilled out the two antenna mounts, which I plan to add piano wire to later. The photo-etch wire cage for the two antenna mounts was then added. I left the commander's hatch open since I was planning to put a figure in it.

The ModelKasten tracks were assembled without any difficulty. These are the workable types, so I only put a little glue on the pins. I left them open to allow them to be mounted after painting since there is not enough room when the return rollers are already glued on to get them in. I should have checked this, but I just forgot. Oh, well. If you leave the return rollers off until after painting, you won't have this problem.

I glued the two tow cable ends on the chassis, but left the tow cable off since I was going to replace the kit supplied string with a Hudson & Allen wire.

Cool paint job and detailing

There is not a lot of choice on paint jobs since the Japanese now camouflage virtually everything. If you build an early Type 61 you could get by with a solid color, but not on later models. Anyway, after the mandatory wash job, I sprayed the tank with Tamiya XF-65 field gray for the base coat. Amazingly, the plastic was almost exactly the same color. I actually had to look carefully to see where I had painted and had to go back on a couple of spots I missed. I then sprayed on the camouflage color, Tamiya XF-52 flat earth. Only two colors were used, according to the instructions, which is what I was going by.

The roadwheels were first sprayed with Tamiya XF-1 flat black, and then the outside faces were painted with the appropriate color, depending where the camouflage hit them. I used a circular template to mask them. The mufflers were painted with Polly Scale panzer red brown, then the grills were glued on. The mantlet cover on the main gun was painted with Vallejo khaki. The tracks were sprayed with a thinned Polly Scale panzer red brown. I then painted the track pads with Vallejo black gray.

The areas for the decals were sprayed with

clear gloss and the decals were attached. As I mentioned, the kit decals were missing and the older Tamiya kit decals were so old they were yellow instead of white and fell apart when put in water. Fortunately, Tamiya has a nice set of aftermarket decals for their JGSDF kits. I used the unit decal of the 8th Division, 8th Tank Battalion, 2nd Company. Bumper numbers came from an unbuilt Type 74 kit.

I sprayed the whole tank with a semi-gloss acrylic to seal everything and tone down and blend the decals into the paint job. I then started the weathering by giving everything a wash of very thin black oil paint. I went back after this had dried and spot washed all of the hatch lines and rivets. I do this by first brushing on a thin coat of thinner over a small section, then going over with a small brush and dropping small amounts of 50/50 burnt umber/black oil paint wash on the desired points. I dry brushed using a combination of sap green, titanium white, burnt umber, and yellow ochre oil paint.

The tracks were given a wash of very thin Tamiya XF-1 flat black. They were dry brushed with Rub-n-Buff silver, along with other metallic items on the tank like the tools and machinegun.

I finished up by adding the MV lenses. I used two of the IR lenses L132 and for the clear lights I used lens L29. For the small rear taillight, I used a L220 red light. The large taillights were painted red, white and black, and finally Kristal Kleer was added to the lenses. I also put Kristal Kleer in the hole in the mantlet cover. I followed Tamiya's suggestion and used metallic blue paint for the vision blocks on the commander's cupola, which I had never tried before. I was quite happy with the results. The Hudson & Allen tow cable was then fit-


ted. It went on without any trouble using the mount points around the chassis. The fit was so good I did not even have to use glue.

Putting it on a base

I used the figure from the kit, which is an unusually relaxed pose of a Japanese tanker leaning back in the commander's cupola checking out the scenery. I assembled him from the kit and then painted him with a combination of oils and Vallejo paints following the painting guide on the kit instructions.

The base was made from sheet Styrofoam covered in tile grout mixed with Celluclay. I added a couple of rocks made with plaster and molds from Woodland Scenics, then sprinkled on some kitty litter. Once it was dry, I gave it a wash of burnt umber acrylic paints and then dry brushed it with various oils. Last, I put a little thinned white glue in a few places and put some static grass on it for color.

The results

The only difficult part of this kit was replacing the screens on the rear deck and the muffler screen. The rest of the kit was up to the usual Tamiya easy build. I think the ModelKasten tracks are a must, but that is me. If I am not mistaken, the model tanks from the old monster movie "Godzilla" were Type 61s, which ran up on strings to attack the big guy in the rubber suit. Although this is an older kit, I think it still builds into an interesting model. It is odd that Eduard has missed this one for a photo-etch set, but the Ordnance Models sets are actually quite good and I highly recommend them both. 

—Tanner Namoitka

MMIR RECCE

Tamiya Type 61 Tank. Kit number 35163. Suggested retail price \$21.96.

Ordnance Models Grills for Type 61 Tank. Kit number N-001. Suggested retail price \$9.97.

Ordnance Models Photo-etch set for Type 61 Tank. Kit number N-002 Suggested retail price \$6.23.

ModelKasten Type 61 workable track. Kit number SK-12. Suggested retail price \$39.95.

References

Type 61 by Christopher Foss, Jane's Armour and Artillery 1996-97, London, 1996. A couple of photos, but mostly history.

J.G.S.D.F., by John Norris, Military Modelcraft International, March 1999. A few good photos.

3-tons of fun

The new German halftrack release from AFV Club kicks a little ass!

Truly exciting kit news has been hard to come by recently. We had a pretty good run there for a

while, but the flow of completely original kits has slowed to a trickle. So when a new German kit comes along, I get pretty excited. However, the subject of today's story is more than just a new kit, this model has never been done before in plastic—ever. Cool.

The star of our show is the Sd.Kfz. 11, also known as the 3-ton half-track. This was one of several tracks used by the Germans in WW2 and they came in many different flavors: 1-ton, 3-ton, 8-ton and 18-ton. The 3-ton was designed as a prime mover for light and medium artillery and this generally

meant the different versions of the 10.5cm field piece. It was also used to tow the 7.5cm Pak 40 and various flak guns as well. But you didn't come here for a history lesson did you? Let's get to the meat of the matter, shall we?

AFV Club to the rescue

AFV Club has earned quite a reputation for itself over the years with mind-blowing tooling and detail. This reputation was earned with the likes of the M88, the M88A1, the M35 truck and the LVTP—all modern subjects. Their first WW2 subjects were Allied: the M18 and the M10. The trend seemed never to shift to the other direction and the announcement of this kit took me completely by surprise. AFV Club doing a German subject? It just can't be! Or could it...

The first thing to greet you is yet another fabu-

lous piece of box art. The tractor is shown by itself, resplendent in Afrika Korps dark yellow. When opening the box, seven sprues stare back. These are all presented in orange-colored styrene. Also packed in are clear windshield parts, flexible tracks and a small, but special fret of etched parts. The Club has always tucked in a little something special and in this kit it's the brass, baby. The fret is primarily made up of the large anti-skid plates found on the side fender panels. These are not only etched; they're formed, too. Yep, the parts are pre-formed right on the fret to match the curve of the fenders. Mission accomplished, I'm impressed.

As you may recall, the 3-ton shared a few features with its close cousin, the Hanomag 251. One of these features is a similar frame and that is where construction starts. The frame, like most German half-tracks, is a ladder type and AFV breaks it down into several parts; the left and right sides and the center "ladder" section. The side pieces are quite sturdy and they contain all the locating points for the torsion bar arms. The frame eventually contains eight structural pieces and the subassembly is an excellent base for the rest of the model.

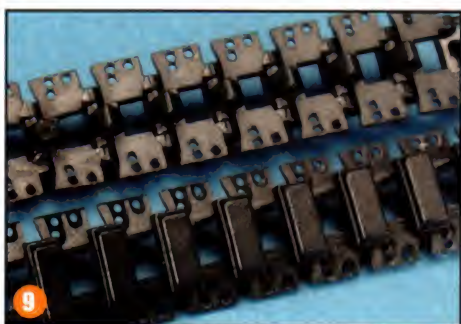
No engine is provided to stick in the front of the frame, but a very respectable transmission is included (the engine compartment is blocked off, but wouldn't be hard to remove). This consists of three parts and the finished part gets installed on the ladder frame, in front of a large fuel tank.

The torsion arms go on next and each is accompanied by a separate bumper stop. The last arm on each side gets a stabilizer base and a rocker arm. The final drive housings are also added now. The frame starts to look pretty complicated at this point.

The various wheels for the running gear are superbly executed. These parts are actually



1, 2 Two views of the frame. This sub assembly is composed of several different parts, which adds to its stability. The front is to the left in each photo.



3, 4. This is the fine looking little transmission module that eventually gets hidden underneath the body. 5, 6. Front and rear views of the front suspension. 7. These are all the basic suspension components. The drive sprocket is to the lower left. 8. The back and front side of the front wheels. 9. The tracks are the glueable type. The inside face is at the top. 10, 11. The front lower body panel is one piece. The engine module can be seen in photo number ten. 12. This is one of two wonderful pre-formed brass pieces for the fender area under the cab door.



available as a separate kit and I can now see why. The drive sprockets are particularly well done. The teeth of the sprockets work in conjunction with a series of rubber rollers and each of these is accurately rendered. Watch out, though, there are separate and unique halves for each side.

The front wheel mount and suspension is also very intricate. It consists of six parts including the steering gear. The front wheels of the 3-ton were not powered, but they still factored in the steering and suspension. This subassembly attaches to the front of the frame and connects to a v-shaped stabilizer and the steering drag link arm.

Like all interleaved suspensions, this one uses layers of road wheels. I left all mine off the torsion arms for painting along with the front wheels. These are all plastic and come off the sprue in two halves.

Surprisingly, flexible tracks are included in the kit. I was skeptical at first, but quickly noticed that the molding on them is superb. All of the characteristic perforations in the links are present and they are molded in a matte black plastic. More on these (much more) in the painting section.

Deluxe coach work

The front of the body is essentially one piece. This is where those nifty pre-bent etched skid

plates come into play. They install to the rear of the front fenders. The fit was perfect and just a few small drops of super glue held them in place. There were so few parts to add to the front body panel that I went ahead and added it to the frame. The driver's compartment floor follows and this small and beautifully engraved subassembly gets all the various control levers. This is then mated with the frame and front body panel.

The front firewall serves as a basis for the remainder of the driver's compartment. The main firewall piece is also chock full of exquisite details. This is combined with the dashboard and the instrument panel, along with the steering column and steering wheel. Once complete, this subassembly forms the back of the entire engine compartment along with the radiator cover, the hood and the engine cowlings. All this is aligned on the main body panel. The fit was dead on and everything went on straight and level.

To complete the driver's compartment, a few more teeny details were added to the windshield and the side door pieces. This included two gorgeous little rear view mirrors for the windshield. Bringing up the rear are the seats and the rear bulkhead panels and brace. To complete the engine compartment, I first glued in the radiator housing. This provided a

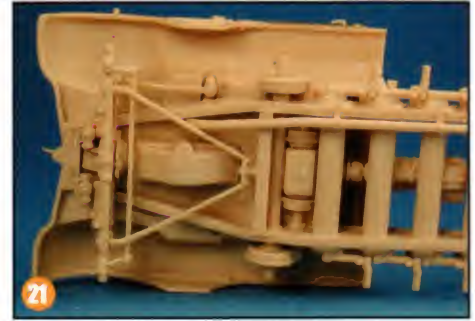
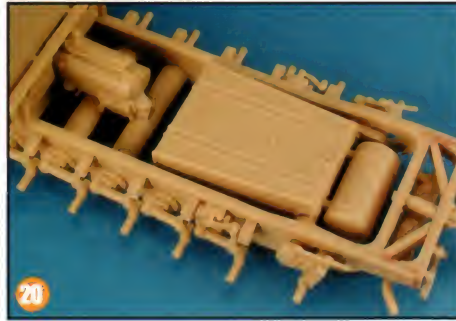
firm base to add the remaining panels, although many of them needed minor sanding to fit correctly.

I saved all the real little parts for this stage of construction to keep them from breaking off. These parts include the headlights, windshield locks and hinges, fender distance markers and the left side spotlight (the clear lens was left out for painting). Also added at this point is one of the remaining etched parts, the company logo for the radiator. Neato, neat, neato.

One last detail at this stage is the exhaust pipe. This is rendered as a single piece, along with the muffler. This large piece joins a shorter piece that emanates from the engine. I liked this, as it made it much easier to install.

On to the back

AFV Club supplies the back end of the 3-ton as one part. This is attached to the doors for the unit and it forms a large, single "floating sprue." Interestingly, the big openings for the side doors are



front and rear body to line up. AFV Club gives you the choice of two etched parts or two plastic parts for the binding plates between the front and rear bodywork. Only the plastic parts provide the necessary spacer to align the two main body sections. Locating the rear section on the frame is not

13. The bottom of the driving compartment is highly detailed. 14. The front of the firewall. 15. This is the completed firewall on the driver's side with all the gauges and controls in evidence on the dashboard. 16. Even the insides of the doors get the full treatment. 17. The large rear body

closed with a sprue web to keep the area from warping. This took some care to remove, but I appreciated the effort. This part is also one of the wonders of the kit, with hundreds of delicately rendered rivets. Be careful with this part, the rivets are small enough to be lost with a good bump.

Construction begins with the top deck of the rear unit. This is the logical place to start, because it contains a delicate stowage rack and the stays for the soft-top. Once complete, this subassembly drops right into the open cavity of the rear unit. Just a few additional parts finished it up, such as the seats, access panels and side doors. Once complete, this great looking subassembly gets neatly installed behind the front bodywork and this kit is basically done, dude. The only part I found to be sub-standard was the rear Notek light. I replaced it with one from the Tamiya Panzer IV set (it's always something, right?)

I was hoping to paint the model in several sub-assemblies, such as the frame, the front and the rear coach work. After careful study, I realized that the whole thing must be stuck together to get the

enough. The reason this is so critical is the large folded top provided installs on the rear body section, but its frame is attached to the front.

So, final assembly commenced and the final sub-assemblies were the half-track and its suspension.

I paint, therefore I am a painter

I went with the three-tone scheme of an SS vehicle and used Tamiya paints throughout. I started with a black base, then laid on the dark yellow and followed it with an over spray of dark green. The many road wheels were masked with a template for painting. I painted all the roadwheels, inside and out, as most of the surfaces can be seen on the finished kit.

The decals are all from Archer Fine Transfers and represent a vehicle from the

SS Totenkopf Division. The symbols on the front and rear fenders are for a light, towed howitzer unit.

The seats were painted overall Vallejo English Khaki, then given a wash of lighter green and brown. They eventually received a light over spray of light tan to represent wear. The gauges were painted with Vallejo black and white, and the large center gauge got its distinctive red line.





module is one piece, although here it has already been detailed with other parts. 18. Hello in there! There's nothing in the ammo compartments, but there's plenty of room for Aber or Eduard. 19. Lots and lots of teeny bolt detail all over the access doors. 20. This is the completed frame as seen from above. 21. The front suspension, transmission and engine. 22. The company logo is supplied as an etched brass part. 23. The binding plates supplied in brass—don't use them. 24. Hmm... nitice. The finished and painted dash. 25. A view from the back. I chose an SS scheme and used Archer Fine Transfers to mark the entire model. The kit decals were good, but I wanted the speed of dry transfers. 26. More rivet love. The tracks were made to lay down with super glue. 27. The detail of the front grill area needs to be seen in person to truly appreciate it. 28. I took this just before I slammed into the floor... More great tooling. The mud is pastel powder dissolved in Tamiya acrylic thinner.

To weather the kit, I used a black and burnt sienna oil wash, but I emphasized a browner tint to accentuate the tan base coat. I applied the usual pin wash of darker pigment while the wash was still moist and those rivets on the rear bodywork really started to sing.

Once the wash was dry, I began drybrushing with Vallejo Yellow Ochre for the tan and Field Gray for the green. More rivet singing was at hand.

I was generally having a terrific time until I was assaulted by those tracks. This is mostly my fault, as I had blissfully built away assuming they would be the perfect fit. They're not. The left is about two links too long, while the right is about three. I feared this would be difficult to fix, but it wasn't. I used a sharp X-acto and excised the appropriate number of links from each side. I make sure to trim the links away so that proper, flat surfaces resulted. This ensured a proper gluing surface. The tracks responded well to superglue and the patch-job turned out to be very strong. The fit of the sprocket teeth to the sprocket was not good and I had to clip off about five of the teeth where they meet the sprocket. Once all this was accomplished, I had no problem getting the tracks over all the wheels and onto the sprockets. I also tacked them down to the tops of the roadwheels with small amounts of superglue.

Incidentally, I painted the tracks with Vallejo Gunmetal, then gave them a heavy wash of brown pastel dissolved in Tamiya acrylic thinner. The rubber pads

were drybrushed with black.

The last things added were the glass parts. The windshield glass was a very snug fit to the painted model. So snug, in fact, that I didn't have to use glue. The clear lens for the spotlight was stuck in with white glue.

OK, I guess I've

covered about everything. Great kit, great build, great parts, great fit, crappy tracks. It's not enough to make me dislike this kit and I look forward to a whole slew of German releases from these guys. The next kit up is supposed to be the 10.5cm gun to throw behind this beauty. Is it here yet?

—Pat Stansell



MMIR RECCE

AFV Club SdKfz. 11 3ton Half Track. Kit Number 35040. Kit graciously provided by the manufacturer. Suggested retail price \$39.98.

References

Die Halbketten-Fahrzeuge, Des Deutschen Heeres 1909-1945, Walter J. Spielberger, Motorbuch Verlag, Stuttgart, ISBN 3-87943-403-4. Not too much on our buddy in this German language book. A few photos and a line drawing. Interesting photos of some of the variants, too.
Militarfahrzeuge of the Wehrmacht, Kurt Rieger and Uwe Feist, Ryton Publications, 1997. A few more photos grace this title, including some of the later version.
German Halftracks in Action, Uwe Feist and Kurt Rieger, Squadron/Signal Publications, 1972. Out of print forever, this slim man provided a nice selection of shots.

Awesome Autocar



(model 94X43) differed only in the design of the cab. All the tractors shared the same engine, the Hercules RXC 112. This tough little engine was also used on the Diamond-T 4-ton series of trucks.

A couple of different trailers were utilized, the most common being a wooden, open topped, stake type. This was commonly used to haul cargo, but was occasionally used to haul troops. When the 82nd and 101st airborne divisions were rushed into the

Ardennes in late 1944, several of the companies were moved in these trucks. A sheet metal van-type trailer and a fuel trailer were also among those used with the U-7144T tractor.

These tractors stuck around for a while and were only declared limited standard in 1953. Some even made it to Vietnam with the French.

And now, here's the star of our show

OK, you say, good enough. What about a kit? This is certainly the type of thing that we are never likely to see from a plastic kit manufacturer. First of all, it can't kill you—it doesn't have a gun. Secondly, it's pretty complex with all its driveshafts, linkages,

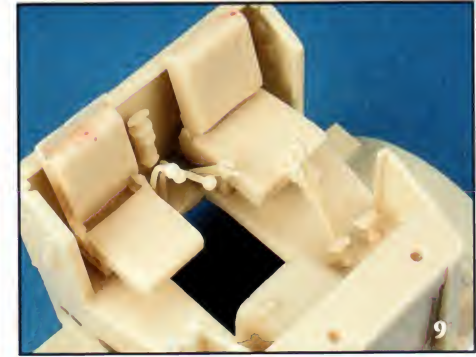
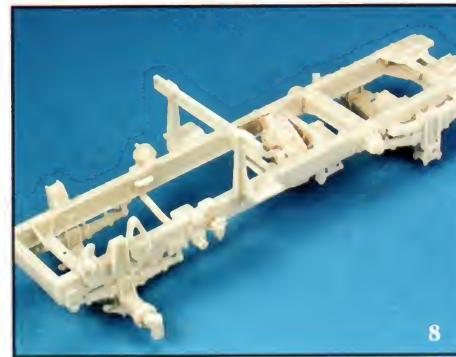
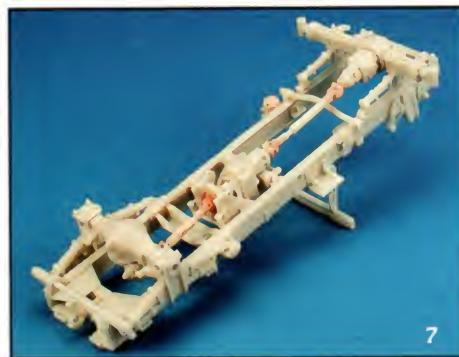
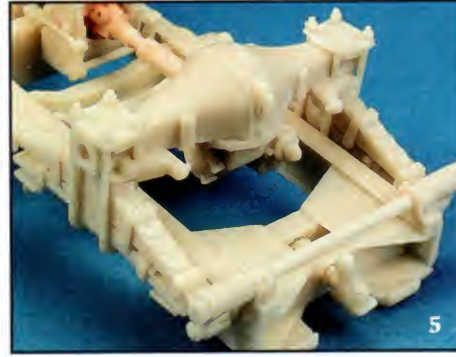
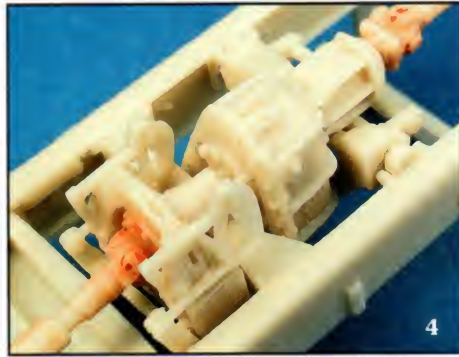
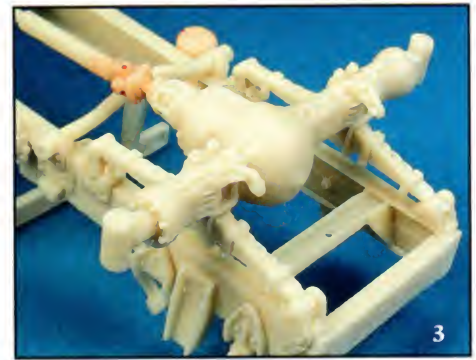
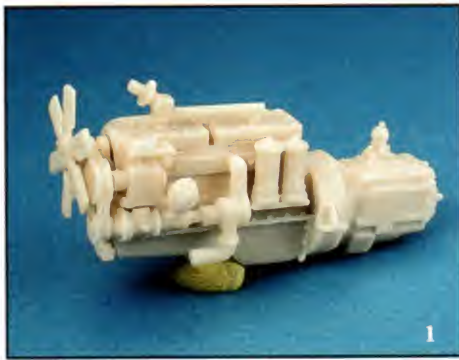
etc. And thirdly, it's slightly obscure, without the "glitz factor" found with other WW2 vehicles. This is not to say that this truck was not a major player on the soft skin scene. Thousands of all the types were produced and they saw service in all theaters. So, without the help of the plastic boys, where do we turn? Enter Des Kits, small French resin manufacturer extraordinaire. They have rendered both the tractor and the wooden cargo trailer, available as separate kits.

And what kits they are. The tractor kit has 171 parts, assorted sized rods and a small sheet of clear plastic for the windshield. Des is well known for their meticulous attention to detail and quality casting. Amazingly, there is very little clean up on any of the parts.

Construction starts much like the real truck, sub-components added to a frame. The engine is first. This is the Hercules RXC 6-cylinder of the "L" head type. I started on the left side as you are looking at the instructions and added the oil filters first. This was followed by the water pump and the distributor (all molded together), the air compressor, the cranking motor and carburetor. The generator mounts under the carburetor. The exhaust

When the U.S. went to war, it took its trucks right along with it. The war department and the Army developed a bewildering array of trucks to fill the many roles of an army on the move.

One of these was the Autocar U-7144T tractor. The design specs for the Autocar were simple. A rugged, mil-spec tractor truck, four-wheel drive and capable of hauling semi-trailers laden with cargo. The official specification was 4x5, 4/5 tractor. The companies Autocar, White and Federal each produced a version. The Autocar and White (model 444T) trucks were identical, while the Federal truck



1, 2. Left and right side views of the engine. Almost all the parts are added to the block. I didn't wire mine, but it wouldn't be all that tough to do. 3. The front axle waiting for the front hubs. 4. The transfer case and propeller shaft brake. 5. The rear axle. Note the tow hook and cross member. 6. A close-

up of the threaded tow pintle. 7. This is the completed drive train. Pretty cool, huh? 8. The finished frame minus the hubs and the engine. 9. The cab with all its gear installed. The large locating holes for the hood can also be seen on the top of the radiator cowling.

manifold is added above the carburetor. The whole assembly is just a delight. Part 130 is three parts all molded together, the thermostat, water pump by pass tube and the water outlet manifold. This finished sub-assembly was set aside until later.

Onto the frame

To build the frame it's necessary to jump around a little within the instructions. This is where the tech manual comes in real handy. It certainly helped me name all this obscure stuff! I started with the front axle. This mounts on top of the front leaf springs. I made sure all these parts were all straight and level so the truck will sit flat. The shock absorbers are added to the inside of the frame rails. I dry fit the shocks and the linkage parts to the axle before gluing. Mine had to be angled down just a little to fit right. The hubs are installed next, along with the front brake parts.

The steering is installed next and this includes the "pit man" mount and its bracket. I then installed the steering arm on the hub. The pit man arm was dry fit to the drag link before gluing. The bracket for the pedals is now added, as is the front cross member and the transfer case.

The propeller shaft brake system is now put in

place. This is made up of two parts. You will have to trim one of the parts to fit into the transfer case. One neat detail is the mounting point on the back of the cross member. This brake system was chiefly for parking and was operated only in case of brake failure. The shock absorbers went in next. Make sure you point the arm of the shock to the front of the truck. Part 35 is the towing pintle and this even contains the correct threading on its shaft. This is how all these pintles looked and this is the first one I have ever known to be done correctly. The fit was so good, I left it unglued and placed the cross member over it. The rear leaf springs are in four parts: the auxiliary spring (it's smaller) the main spring and the two spring clips.

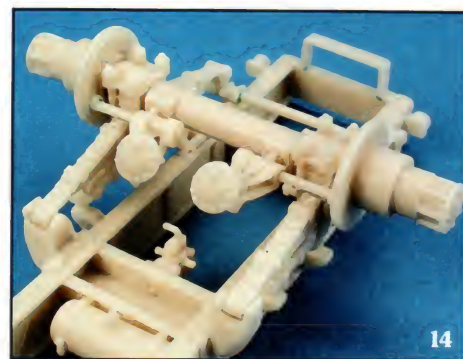
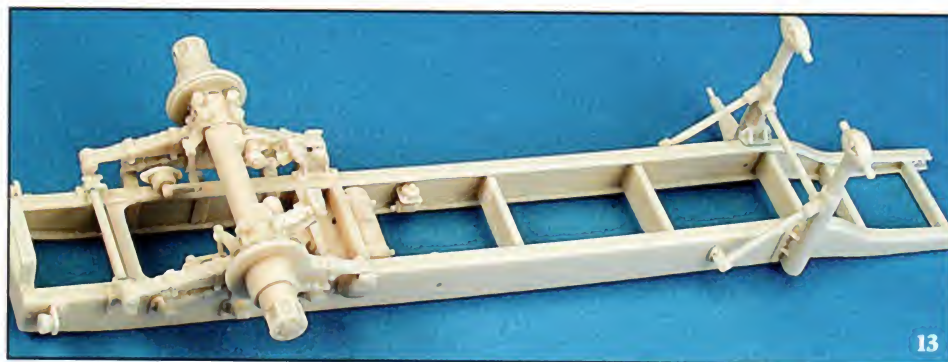
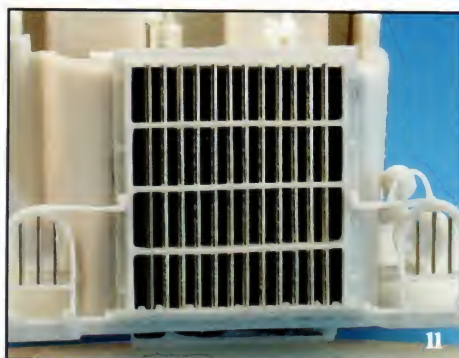
Pins are provided on the springs to line them up properly. I placed the axle shackle on the rear of the frame first. The springs mount in the front of the spring bracket and the rear the springs fit into the shackle. I glued the axle to the springs now, making sure all the parts are level. The u-bolts are next to be installed. They go around the springs. I lightly glued them at the top so that I could test fit the plate at the bottom and still be able to trim the bolts down for a level fit.

The frame sides are next, up and down the left

and right. Starting on the driver's side, the gas tank was added. There is a locating mark for one side of the tank, so I leveled the other and glued it in place, then added the wooden deck above the gas tank. The towing loops are also added to the front bumper. The reservoir tanks were installed and the truck's tool box mounts right behind the tanks. The tire carrier is last and it is also made up of four parts.

The fifth wheel is a marvel of detail and is made up of five parts. The mounting plate has a locating pin only on the right side, so I eyeballed it on the left and glued it in place on the frame. I placed the support shaft and added the lever handle, part 38. The fifth wheel was mounted flat so the trailer could be attached as if being towed. The taillights are the last pieces to be added to the rear of the truck.

To install the exhaust, I test fit the motor with the main exhaust pipe glued in place. This helps to get the proper placement for the muffler on the frame. The gas cans were placed on the top of the gas tank and then the tools were placed in the tool carrier. The trailer connections were installed behind the tools. The trailer air connections are on the outside and part 50, the trailer lighting receptacle, gets installed in the middle.



10, 11. One of my favorite parts was the front grill. In shot 10 we see the rods inserted and shot 11 shows the finished results prior to painting. 12. The hood subassembly. It's not mentioned in the text, but I added windshield hardware from an Eduard set for the Dodge 3/4-ton trucks. 13. An overall shot of the trailer frame before the stake bed was added. This large frame part was razor straight right from the box. 14. A close-up of the trailer axle. Many of the teeny components can be seen here, like the brake reservoirs and emergency valves. 15. The landing gear for the trailer, minus the wheels. These mount on either side of the t-shaped parts at the top of the photo. 16. Check these out, the air filter and brake reservoir. Wire me, baby! 17. The completed stake bed. The entire thing is festooned with beautiful wood grain detail. 18. Even the bottom gets the detailing works!

The cab gets the works

The engine cowl located under the dash gets added first, because with all the gears and seats in place, it's difficult to get it in and out. The extra teeny cowl latches need to be added before placing the cowl. A small box, part 15, is added to the front of the engine fan cowl. This part could be a glove or an ammo box, I'm not sure. The various operation levers are placed next.

Two parts make up the passenger seat and the driver seat, although they are each different. The pedals and the steering column finish off this part of the cab. I constructed the front hood and windshield as a separate subassembly. There are two locating pins on the front of the hood and these fit perfectly into holes in the cab part. This allowed the part to be repeatedly taken on and off. A similar spooky fit is found on the doors and these were also painted as separate pieces. One thing to watch out for here: one rear view mirror is mounted to the cab, while the other is mounted to the hood/wind-

shield. Both are very delicate.

The rest of the cab was a no-brainer. One of my favorite features of the kit was the front engine radiator grill. On the real trucks, this grill was made up of flat steel stock and metal rods. A very delicate, but exquisitely molded part is provided with small holes already located in the cross members to receive thin brass rods. Awesome! The light guards to either side of the grill are similarly designed. Some brass rod is included in the kit, but there wasn't quite enough to do both the grill and the light guards. I substituted some brass wire of my own and carefully re drilled all the holes. I also drilled out the lights to receive MV lenses.

A soft-top is not included in the kit and in all of the photos I have seen, the top is only installed in half of the them. One could easily be fabricated from brass rod and tissue. I decided to take it half way by adding two lengths of rod bent to shape to simulate the support structure. Disks from a punch and die set made the hinge pins. I used the box top



as a reference and photos of the truck with the top installed. I don't know if this configuration is correct, as all of the photos without the top installed have the supports removed as well. Anyway, it made the truck look a little more interesting, without blocking the view of the interior.

On the trail of the trailer

The trailer has only 56 parts and many of the larger ones contain stunning wood grain detail. Like the truck, this kit has very little flash or over pour on any of the parts. I started by cleaning up what little there was. This took less than an hour.

Starting with the frame, the first parts added are the right and left air filters. There are locator



19. The model was painted with Vallejo Air Olive Drab. Basic weathering was accomplished with Tamiya Buff and Flat Earth. 20. That pesky side rail had to be added during painting. The front air connections are also visible. 21. Here, the Fingerprint Designs decals go into action on the dashboard. 22. I am applying the "pin wash" here. This was applied while the base was still moist and it utilizes a slightly thicker black/burnt sienna mixture. When dry, the darker pigment blends in well with the other paint. 23. The painted and weathered engine. (Say it with me) IT'S A SHAME TO COVER IT UP. No, really, it is. 24. High wear areas were highlighted with a gunmetal color pencil. 25. Could you beat this, or what? All the gauges installed and clear-coated. 26. The support frame for the soft-top was made from brass wire. 27. The rear deck of the tractor, showing the spares and my added chain. 28, 29. The markings here are dry transfers from Scale Model Accessories. 30. The greasy fifth wheel and the rear reflectors. The reflectors were painted with Vallejo silver and Tamiya clear red.

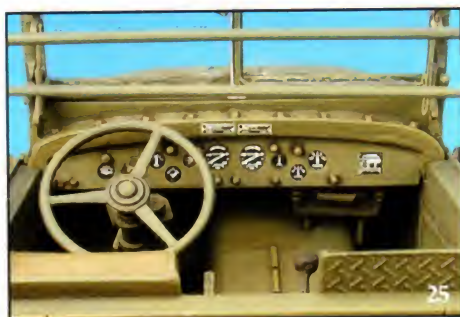
pins for both parts. I moved on to the cross member to place in the air reservoir. Again, there is a locator pin. A beautifully molded emergency valve gets placed on the backside of the cross member.

The leaf springs for the single axle are in two parts, the larger main spring and the smaller auxiliary spring. I glued them both together, then placed the front of the spring in the spring hanger. The rear of the spring is placed in the cross shaft bracket. This gets repeated on the other side. I placed the cross shaft in place after the springs had been installed, then added the left and right shock absorbers on the plates next to the springs. Don't clean off the backs of these parts, they need to meet square with the plates on the frame. When

this was complete, I placed the axle on the leaf springs. The linkage for the shock absorbers is installed at this time, as well. To finish the rear, I installed the lights and rear step.

The landing gear is now installed. Not much to mention here, although the trailer cannot be displayed separately unless the gear is constructed in the down position. This is, obviously, not correct for a trailer connected to a tractor.

To assemble the stake body trailer sides, I started with the front and worked my way to the back. Once the front is in place, I added the bigger stake sides, then the smaller stake sides and so on. To level out the body, I took the trailer (with the glue fully cured) and wet sanded it upside down on a piece of





31. SMA strikes again on the trailer toolbox.
32. Ditto on the rear end. Check out that wood grain detail. 33. The completed and painted

tractor strikes a pose with many of the markings and the MV lenses in evidence.



sandpaper placed on a hard surface. To make the stake sides look separate, I used a razor saw to re-score the sections.

The wheels are the last thing to deal with. Like the tractor wheels, I painted the center hubs of the double axles black before gluing them together. The final steps are placing the trailer bed onto the frame, adding the toolbox and installing the teeny hose couplings.

Let's have a paint party!

I ended up with five large subassemblies for painting: the truck chassis, the cab (with the doors), the engine, the hood/windshield and the trailer. All the subs were primed with Tamiya XF-1, flat black and then coated with Vallejo Model Air 043, Olive Drab. This is a really cool paint that is pre-thinned for airbrushing. I liked the color, too. It did tend to clog my Iwata Micron B airbrush, but it may not be a problem with other brushes. Since the tires were already black from the base coat, I painted the centers with a template.

The engine was painted and weathering separately to give it the appropriately greasy look. There is a very thin rail all the way around the bottom of the trailer and this was made from thin Evergreen strip. There was no way to ensure that paint would get underneath this part, so it was added after the initial base coat of OD.

To mark the truck and trailer, I turned to a variety of sources. The registration numbers and stars came from Archer and the remainder of the mark-

ings came from two Scale Model Accessories dry transfer sheets, including their 2.5-ton truck sheet. The yellow Prestone marking is also from SMA. All the markings were applied prior to any weathering.

I chose the SMA 2.5-ton sheet because it included markings for the Advance Section Communication Zone. These markings were typical of trucks assigned to transportation companies of the Red Ball Express. The Autocar was used right alongside the "deuce and a half" trucks and was marked the same. These particular markings are found on the bumper. I also used the bumperette markings for the same truck on the trailer, but this is not correct. Trailers had their own set of markings that were not the same as the truck that pulled

them (they were actually considered separate vehicles). I just couldn't find any reference for these numbers. So I decided to fake it, instead.

Base weathering was accomplished with oversprays of Tamiya Flat Earth and Buff. This was followed with an overall wash of burnt sienna and black oil paint and a "pin wash" followed that (see photos). High wear areas were picked out using a gun-metal Berol colored pencil. The instruments each received a drop of Tamiya clear after the weathering was complete.


Oil stains were added to the chassis and engine with thinned Tamiya clear orange mixed with a little black. A heavier mixture of this was added to the fifth wheel to represent thick axle grease. The tires were weathered with brown pastel diluted with Tamiya thinner. A slightly thicker mixture of this was dabbed on the bumpers.

Once the weathering was complete, the whole bunch was stuck together. To further compliment the fit of the parts, all the sub assemblies were put together without glue. Only the wheels needed a very small amount of adhesive.

The MV lenses were slipped in behind the light guards. They were secured with white glue. The finishing touch was a length of pre-finished model railroad chain added to the rear deck.

Can we go now?

Well that's my tale. This was some kit and the realization of a modeling transportation dream for me. The killer is that this thing is very expensive. I was not able to determine the exact price of either model due to the conversion to the Euro, but my rough guess is at least \$100.00 for the tractor and nearly as much for the trailer.

It is a lot, but consider that this is really the pinnacle of the resin art, an art that is slowly ebbing away as plastic companies conquer new territory. There are no pour plugs and buckets full of beautifully executed and molded parts. Plain and simple: resin doesn't get any better than Des. 

—Joe Brandon

MMIR RECCE

Des Kit Tractor Auto Car U-7144T (1942/1945). Kit Number 35083. **Des Kit Semi-Trailer 10-ton 14-ton gross.** Kit Number 35084. Both kits graciously provided by the manufacturer.

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- The American Arsenal*, Greenhill Books/Stockpole Books, Pennsylvania, 1996. ISBN 1-85367-254-8. Basically a reprint of the Army's ordnance catalog, it provide photos and tech manual numbers.
- Standard Catalog of U.S. Military Vehicles* by Thomas Berndt, Krause Publications, 1993. ISBN 087341-223-0. Another terrific general reference.
- War Department Technical Manual, TM 9-816*, 4 to 5 ton 4x4 Tractor Truck (Autocar Model U7144T), March 1944. *War Department Technical Manual TM 9-892*, 10-ton Payload, 14-ton gross, 2 wheel Stake and platform Semi-Trailer and 10-ton Converter Dolly, March 1944. You don't really need these to build the model, but it's a lot more fun.

Jousting with a Neutron Lance or...

How Far Can you throw an Atomic Hand Grenade?



Building the Hobby Fan Lance Missile

The Lance surface-to-surface missile MGM-52C was a mobile field artillery tactical missile system. The missile was capable of carrying both nuclear and non-nuclear warheads and was designed to be an U.S. Army Corps level artillery asset. The Lance was originally supposed to replace the Honest John rocket in the U.S. Army, but by the time it was finally ready for deployment, it actually replaced the Sergeant missile, which was the replacement for the Honest John. In NATO countries that used the Lance, it actually did replace the Honest John, since they never received the Sergeant.

A short version of a long story

The Lance program began as the Missile "B" Project Office on 11 December 1961 under the U.S. Army Ordnance Command, later to be moved to the new U.S. Army Missile Command in August 1962. The Lance Missile System was awarded to Ling-Temco-Vought (LTV) as the prime contractor on 11 January 1963. The first engine test took place on 16 January 1965 and the first flight was on 15 March of the same year.

The Lance suffered through five more years of the normal bureaucratic garbage of changing

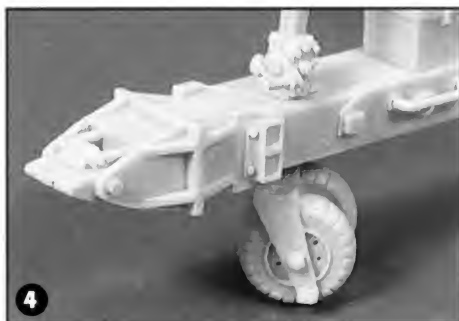
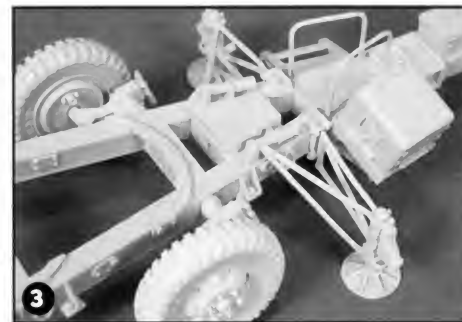
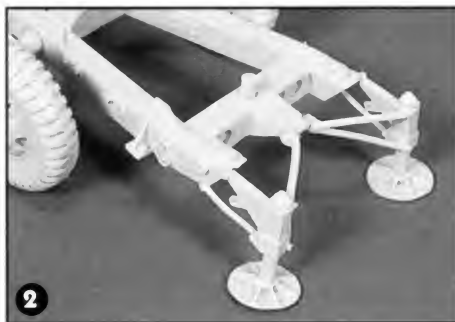
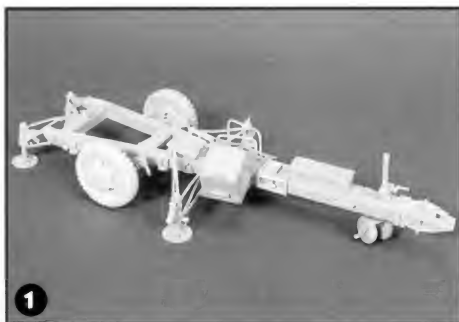
requirements, redesigns and testing until production was finally approved in September 1970. The first battalion was deployed to Germany with the U.S. Army Europe (USAREUR) in September 1973. The nuclear warhead for the Lance did not actually get approved until a few months before this deployment. Oddly enough, the conventional warhead took another three years before it was ready to deploy.

For an "aimed," rather than "guided" missile, the Lance had a reputation of being extremely accurate. Of course, with a nuclear warhead, being off a few meters is not all that important!

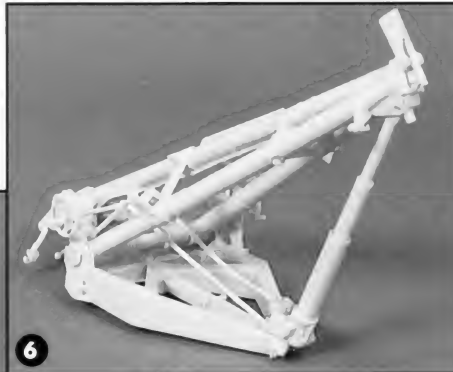
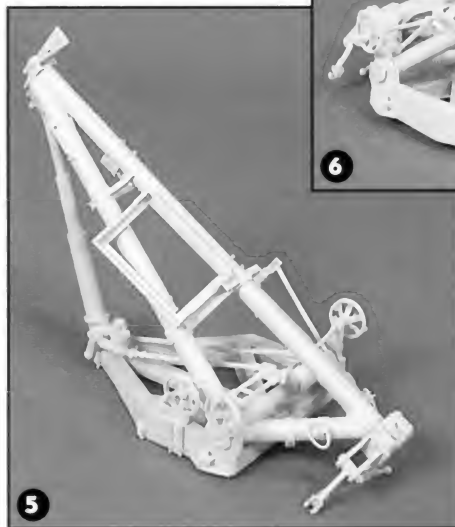
My first contact with the Lance was when I working at USAREUR Headquarters in Heidelberg during the Lance's first deployment. Because it was so accurate, the standard military 1:50,000 scale maps issued at the time were considered too inaccurate to be used for targeting. Remember this was long before the Global Positioning System (GPS) capability. So, the Army came up with a new system to provide more accurate firing coordinates for the Lance using imagery. I was on an Army team that initially was trained on and evaluated this new targeting system. The same system went on to be used by the U.S. Air Force for years and although considered obsolete, it is still being used today.

Although not a lot of people ever heard of the Lance, almost everyone has heard of the "Neutron Bomb" or in this case the more accurately named Enhanced Radiation Warhead. This was one of the nuclear warheads to be developed for the Lance. Although Congress approved funding for the warhead, good old Jimmy Carter canceled it before production ever began. However, President Reagan revived the program and the neutron warhead was developed. Due to political reasons, the warhead was never deployed to Europe and when the Berlin wall fell, the neutron warheads went with it.

The Lance was also sold to the NATO allies and to Israel. The NATO countries that bought the Lance included the United Kingdom, Germany, Holland, Italy and Belgium. Oddly, the NATO countries did not buy the conventional warhead and the U.S. retained control of the nuclear warheads in those countries where they were deployed. The Lance was scheduled to be retired around 1985, but the program was extended through 1990. It was extended again, but was finally retired on June 30, 1992 when the last Lance Battalion stood down after both Presidents Bush and Gorbachev agreed to nuclear arms reductions. Currently, the Lance is being used as a target vehicle for other missiles like the Patriot. I believe the Israeli's still use their Lances. A total of



1. The basic trailer completed. The main frame was one piece and you get a choice of either U.S. Goodyear or German tires. 2. No provision is made for the launcher to be converted into the travel mode. The rear outriggers were not a great fit. I



included. There is absolutely no text in the instructions, but this is such a simple kit it is really not necessary. There were no painting instructions, except for a color photograph of the completed model on the box. The good news is there are a number of good color photos

of the Lance on the Internet. I am not sure what the term LZL is, but that is what the kit box has on it. The only reference to the trailer I could find was LWL, as mentioned above.

had to use a hairdryer to get things in place. 3. The center outriggers are worse than the rear ones. There is not a positive location point for them. 4. I decided to turn the front pair of wheels at an angle just to be different. Again, like the rear tires, the location hole was too big. 5. The launcher was easy to assemble. The detail of the casings was very good. 6. The only difficult part of the launcher was the hydraulic tubing that ran through it. 7. The completed LANCE missile consists of only five pieces. The one omission is the end of the missile. 8. The tires were glued on after the outriggers were complete to be sure they would sit level. They could be shown raised, but they seem to be resting on the ground in most of the photos I found.



2,300 Lance missiles were produced over the time of the contract at a cost of over \$2 Billion.

The Lance had a range between 3 and 78 miles (5 to 125 kilometers). The nuclear warhead for the Lance was the W70, which had an adjustable yield of 1 to 100 kilotons. The primary firing platform for the Lance was the M-752 Transporter Launcher (TL) (chassis designation M-667), plus the M-688 Loader Transporter (LT), both of which are based on a modified M-548 chassis. Anyone else confused? I know I was when I saw both M-667 and M-752 designators being used interchangeably. What I think this means is that the M-752 TL includes both the launcher and the chassis, whereas the chassis by itself is the M-667. Additionally, a wheeled launcher was available, which uses the launcher truss from the tracked chassis. This truss was removable and could be fitted to the trailer for movement and launching. The M-740 LWL (Low Weight Launcher), which is the subject of this kit, was primarily used for air transport or other situations that required a faster means of movement. A M35 2.5-ton truck normally pulled the trailer, at least in the U.S. Army, although I have seen one photograph with an M-880

1.25-ton truck pulling it.

There is a Lance on the M-740 LWL platform currently at the Imperial War Museum at Duxford in the UK, which I was able to photograph during a recent visit. These are included with this article, since it shows where the markings go. I am not sure, but the markings seem very similar to the ones in the kit, which means it could have been the source for the decals.

What you get in the box

The kit is 100% resin, consisting of 51 parts. The molding was very good. There were only a few small air holes and for the most part, the pieces were easily separated from their pour plugs. The kit includes an excellent set of decals for the missile. There are also two sets of tires, one set of Goodyear for an U.S. Lance and another set for a German version. The decals are only in English. I am not sure if the German missile had German, instead of English markings. The instructions consist of a small pamphlet with two pages of six steps with drawings and no text. Additionally, a photo layout of all the parts and a page showing where all the markings go are

Easy as 1-2-3

This is a very easy kit to build and I more or less followed the instructions. The whole assembly is pretty straightforward and builds into three major components. The Lance missile, the launcher or truss, and the trailer.

I started with the launcher, which consists of the first two steps. The first step only required a little cleaning up of the two main components and the elevation piston. Oddly, you only get a choice of the firing position. To make it in the travel mode, you would have to do some serious conversion of parts. Since I wanted mine in a firing position, I was in luck. Step 2 has you install the hydraulic lines, elevation and traverse hand wheels, plus a few other small items. The hydraulic line was a little difficult to fit, because there are no good location marks. Additionally, the drawings are vague on where it goes. Once complete, I set this piece aside.

The next two steps are for the trailer. On the one-piece main frame, there are a number of fairly well hidden pieces of resin that have to be removed.



9. The base was made from Styrofoam coated with tile grout and Cellucloy. The missile was not weathered, but given a final coat of semi-gloss clear acrylic. The decals were a real bear to get on and, yes the forward decal on the warhead is correct. It is supposed to be at an angle. 10. The figures were made from several DML kits of Desert Storm figures. They were painted in the normal BDU camouflage pattern. 11. The launcher was painted in the standard four-color camouflage scheme used by the U.S. Army after the mid 1970's. There are several red reflectors on the trailer. I first painted them white, then enamel gloss red. The cylinder on the sliding elevation mechanism was dry brushed with Rub-n-Buff silver. The trailer was only lightly weathered using a wash, then dry brushing with oils.



Be careful, because the instructions are not all that clear in a few places. To add the parts, I basically started at the front and worked towards the rear. The front dual wheel set was cleaned up and glued on. I decided to put them at an angle instead of facing them forward. This was for no other reason except that it looked cool. The hand-holds and toolbox were then added. I waited to put the main tires and axles on until all the outriggers were glued in place to be sure the tires would be level. I did have a lot of trouble with the rear rigger supports because they required a lot of bending to get the correct angle. I used a hairdryer sparingly for this operation, since the pieces were pretty thin. I then glued on the base, part 12, and again used the hairdryer to angle the outriggers to the proper angle.

I skipped to step 4 and put the center outriggers on along with the two shelves. These side outriggers do not have positive location points, so you have to go by the photos to place them. When I cleaned up the tires, I was surprised that no tread was lost due to the pour plug. The tires were then glued to the axles. There is a lot of play on the fit of these parts. Once dry, the tires and axles were glued on. Except for a few other little parts, that finished the trailer.

The missile consists of only five pieces, the body and the four fins. The only work on the missile body was that the rear needed to be sanded flat and filled with putty since there were a few air bubbles. The fins were cleaned up and glued on. There was some filling needed around the base of the fins since they do not sit that flat.

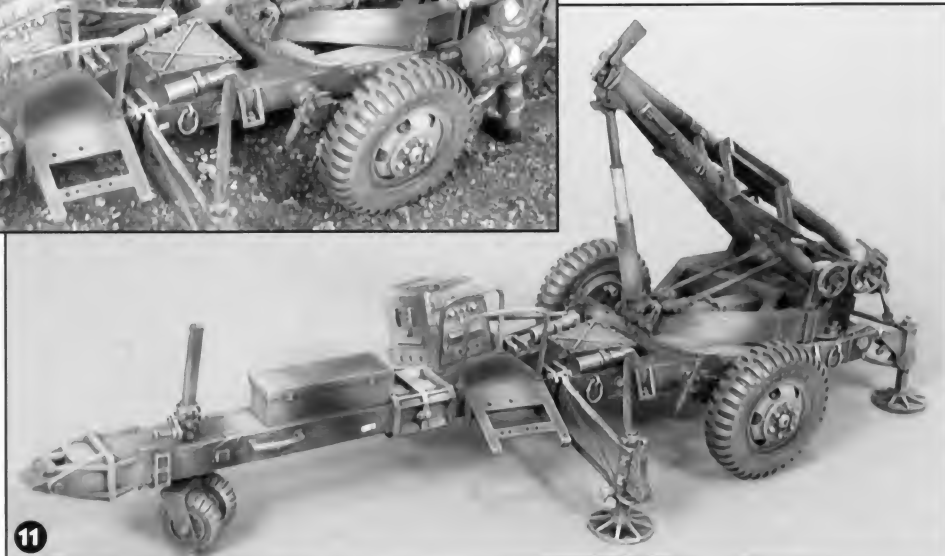
Manning the Lance

I always like to have at least one figure and usually a few more to provide the proper scale of a vehicle. Although I already knew there are really no U.S. GI figures for the period 1960-1990 available, I was even more convinced after this. The problem with the both the Vietnam and Desert Storm figures is they almost always have flak jackets on. Additionally, the standard fatigues had a different type of pockets from the Battle Dress Uniforms (BDUs) and jungle fatigues. Luckily, the Lance was around long enough to allow me to use some modified Desert Storm BDU figures, but they were my last choice. I combined two DML sets of figures from Desert Storm to come up with reasonable poses and equipment for the three figures I used. Since they were designed to be holding weapons, I had to cut some hands off and reposition them so they looked like they were working on the missile.

I then spray painted them with an acrylic flesh mixture to check for joints and give a base for the faces. I then painted the faces and arms with oils. I painted the BDU's using four different Vallejo colors

most of the photos of the launcher it was painted a standard dark green, even when other support equipment was painted in the new camouflage colors. However, there are a few shots of it in the Army camo. The missile is always dark green but the warhead is everything from white to dark green.

Since plain dark green does not do anything for me, I decided to paint the launcher and trailer in camouflage colors. The U.S. Army had a number of cam-



to represent the dark green, red brown, sand and black in the uniforms. All the web gear was painted in dark green, since this stuff is not camouflaged.

What color to paint

Since the Lance was in service before and during the Army's transition phase to camouflage paint, you have several color choices. I noticed in

oufrage patterns and colors, but I decided to keep it simple and just do a four-color scheme of sand, black, earth and dark green. Since the missile body was apparently always dark green, I decided to paint the warhead a different color just for variety.

First everything was given a good wash with warm soapy water. I always do this, but this time



there was extra mold release and there still were a few areas where the paint did not stick well. I sprayed the warhead with a Tamiya XF-65, field gray and let it thoroughly dry. I masked off the warhead and sprayed the rest of the missile and the launcher with Tamiya XF-58, olive green. A camouflage pattern was then sprayed on the launcher using Tamiya XF-52, flat earth, XF-1, flat black and XF-59, desert yellow, which are close to the correct colors.

The missile and the areas of the trailer where decals went were sprayed with Tamiya clear gloss. The decals were then applied. A word of warning here. The decals are very thin, which is good. The bad news is they are really too thin. I know: picky, picky. Anyway, they are very difficult to get on and I did lose a few. As mentioned, the kit includes a sheet with two photos of the completed model with arrows pointing to the locations of the decals. The trouble is that the photos are very poor and grainy so it is difficult to figure out the locations. I had a number of photos from the web that helped a little. After a lot of swearing, I finally got most of the decals on. I then sprayed everything with satin clear for the missile and clear flat for the trailer.

Since the missile would not be exposed to the weather, I left it alone and only lightly weathered the trailer. I first gave it a wash of thin black oil paint. I then dry brushed it with titanium white, sap green, yellow ochre and burnt umber oil paints. Lastly, I used Rub-n-Buff silver on the elevation

cylinder on the launcher.

The base was made of sheet Styrofoam. It was coated with tile grout and Cellucloy mixture. This was mixed with dark brown acrylic paint before applying. I then sprinkled kitty litter over the top. I gave it a wash of more acrylic paint and dry brushed it with a mixture of titanium white and yellow ochre oil paints. Finally, using white glue, I spread a thin coat in places and sprinkled on dark green static grass.

Expensive, but nice

This was one easy kit to build. I built the whole thing in two evenings, plus a couple of evenings on the figures and painting. The castings were very good and there were some very detailed parts cast on. The outriggers were not great and for the money

I think there should have been an option for travel and firing mode. Hobby Fan kits are usually pretty good, but they are often too much money for what you get. This is a good example, since it retails for around \$160 USD. I would have thought for that much money they would have included the M-667 chassis, which would have been more interesting and would have also improved the value of the model.

Just as I was finishing this article up, I read that Hobby Fan has just released the M-752 with the Lance, but I have not seen a price. Actually, they call it the M-677 so you see how this chassis designator gets so confused. ☒

—Jim Hensley

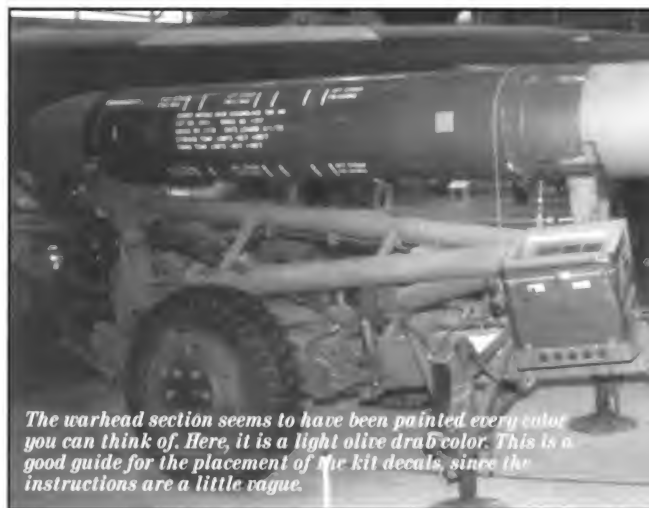
MMiR RECCE

Hobby Fan Lance SSM + M740 LZL Platform. Kit number HF-024. Kit graciously provided by the manufacturer. Suggested retail price \$159.98.

References

Redstone Arsenal Webpage, Lance, <http://www.redstone.army.mil/history/lance/welcome.html> A great site with a lot of "official" information and photos.

Lance Missile, <http://www.manuelsweb.com/lancemissile.htm> This is a personal site but it has a number of great links.



These two shots illustrate a resupply operation in progress at the Fliegerhorst Kaserne, Hanau, Germany by the 1st Battalion, 32 Field Artillery Battalion. They are moving a Lance from the M-688 transporter/resupply vehicle to an M-740 launcher on 29 June 1974.

Adding new skirts to an old gal

Building and detailing the Modelcraft Centurion Mk III



The Centurion tank began its life at a time when the British Army was going through a transition phase. Prior to the Centurion, the British usually made two types of tanks. One was an “infantry” tank, with its primary purpose supporting infantry units, while the other was the “cruiser” tanks, which were designed to go head to head with other tanks. With lessons learned in the Desert War, this thinking was beginning to change and the concept of a “universal” tank that could do both was taking hold. Although project A41, which was to eventually become the Centurion, started out as a cruiser tank, it was eventually to change to the new universal tank. Interestingly, the Centurion's follow-on was the massive 120mm Conqueror Heavy Tank.

There were a lot of changes in the requirements for the A41 before the Tank Board accepted the final design in February 1944. In April 1945, six prototypes of

the A41 were rushed to Germany, but they were too late to see any combat. At the same time, the production version, called the Centurion Mk I had begun, but it was not till 1949 that they were actually accepted into the British Army. Over 4,000 Centurions were eventually built, with production ending in 1962.

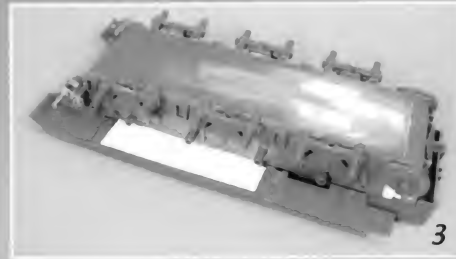
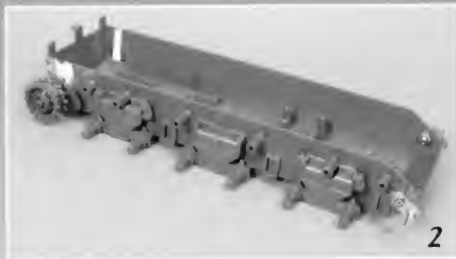
The original Centurion Mk I and II both had the 17 pounder gun, but with the introduction of the Centurion Mk III the main gun was upgraded to a 20 pounder gun. The Mk III also had additional armor protection in the turret and the hull was slightly lengthened. The Mk III was the main tank in British use when they went to Korea. The follow-on Mk V did not start production until 1952, arriving later in the war. A proposed Mk IV never went into production. As most tank guys, know the Centurion has also seen wide spread use in the Middle East by nearly all of the belligerents.

What did you do in the Korean War Daddy?

The first combat action the Centurions saw was during the Korean War. This, of course, was a lot farther

away from the European battlefield than anyone would have guessed in 1945. The first British tank unit to arrive in Korea was the 8th King's Royal Irish Hussars, who were equipped with three squadrons of Centurion Mk III and a Reconnaissance Troop of Cromwell's. They landed at Pusan on 14 November 1950 and provided the armor support for the 29th British Independent Brigade. They were then moved by road and train to Pyongyang, the North Korean capital, just in time to retreat with the rest of the army due to a whole lot of screaming Chinese headed their way. At that time, the Centurions were considered Top Secret and extra care was taken to not allow any to fall into enemy hands. Apparently, this was not true of the Cromwell's.

Ironically, the first round a Centurion ever fired in anger was at a Cromwell tank. The action took place on Sunday 11 February 1951 in a suburb of Seoul called Yongdongpo. The Centurion that fired the shot was “Caughoo,” which was one of the C Squadron tanks from the 11th Hussars. The traitor Cromwell in question was a captured tank the Chinese had put back in



1. The kit has a legacy as a motorized model, so the holes needed to be filled with sheet styrene then puttied and sanded. 2. The side sponsons are lettered so they are easy to get right. Be sure to add the support pieces on them, which I didn't do until later, before gluing to the hull. Only later did

I discover that my Friulmodellismo track set included metal drive sprockets. 3. The holes in the sponsons were also filled with sheet styrene. The main purpose of these was to block off light coming through the turret, since the side skirts would cover most of this.



4. Removing all the molded on detail proved to be the biggest challenge of this kit. 5. The part on the right shows the added detail made from bolts and nuts from the Hob-bits. The plastic bolt heads came from a ModelKasten set. 6. Here are the improved adjustment assemblies glued onto the hull front. 7. The engine deflector was made from photo-etch parts and added. 8. The rear fenders were cut off leaving enough for the photo-etch replacement parts to be glued to. You can see a completed one on the right. 9. The muffler exhaust parts were made using the original part, which was cut down, and enough left to glue the photo-etch parts to. 10. The completed mufflers are now in place and the tools have been replaced with spares and rod styrene. 11. The shovel

was the only thing not molded to the fender, so it was still useable. 12. The two hoods for the driver's periscopes were added along with the box on the front glacis plate. The fender supports were harder to remove than adding the new photo-etch ones. 13. The storage boxes have three piece photo-etch latch replacements. The long hinges in the back were difficult to remove before the photo-etch ones were added. You get two styles of boxes with the photo-etch set one for the early, seen here, and one for the later model. 14. If you want to use the photo-etch smoke grenade launchers, you need to first fill the mount holes. 15. The worst fit was the rear, where some filling and sanding was required. Note that the area where the storage box will be mounted was left alone.



action. If anyone is interested in trivia, the famous first round missed, but the second one scored a direct hit at 3,000 meters.

The Centurion's most famous action in Korea was at the Imjin River on 25 April 1952 when C Squadron, commanded by Major Huth, was involved in several firefights. A number of Centurions ran into a Chinese killing ground that consisted of massed artillery and hordes of Chinese who swarmed over the tanks (just how big is a "horde" anyway?). The swarming Chinese infantry forced the Centurion tankers to fire on each

other in order to remove their unwanted guests. One tank was even forced to drive through a house to get rid of a pesky, uninvited Chinese soldier who would not stop beating on the turret. This action (not the driving through the house) saved the better part of two British infantry battalions. Later the same day, they also saved a Belgian battalion from a similar fate. For the rest of the war, the Centurions were pretty much reduced to a role of mobile pillboxes. They made a very good reputation for themselves with their ability to climb up to mountaintops and with the effec-

tiveness of their 20-pounder guns.

I have always loved the lines of the Centurion and I think one of the first model tank kits I built was the Aurora Centurion back in the 50's. Since I spent over four years in Korea during my Army career, including a tour in the Imjin River area with the 2nd Infantry Division, I naturally decided that a British Mk III from the Korean War would be a good subject for this review.

A truly international affair

My understanding of the legacy of this kit is that it



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16. The boxes and the Dobiesz brass barrel have been added. The only modification needed for the barrel was that drilling the rear mantlet to accept the larger pin. 17. The smoke grenades were built as subassemblies, then glued on. All the hardware has been added, including the small handles, which were difficult and numerous. The two antennas were made from thin piano wire. 18. The machine gun was a combination of a Collector Brass kit and the photo-etch set. 19. The kit water can or fuel can. It was hollow, so I replaced it with one from an Academy accessory set. The mount for it was made from thin sheet metal. 20. Spare track links from the Friulmodellismo set were used instead of the kit pieces. 21. This is the nicest set I have ever put together from Friulmodellismo. Only a few links needed redrilling. 22. The side skirts are now ready for painting. The handles are not furnished with the side skirt photo-etch set, but are provided in the main set.



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Holy hull, Batman

The Modelcraft instructions are pretty skimpy and there are a few minor-labeling mistakes, but overall they are satisfactory. The construction sequence is a little unusual, since it starts with the turret instead of the chassis. I first went through and circled all the areas I would be either replacing or modifying with parts from the photo-etch sets. I always like to work from the ground up, so I skipped the first five steps and started with the hull.

The first thing I wanted to correct was the "holy" hull. As mentioned, this kit has its legacy from the Tamiya motorized version. Therefore, the hull has holes normally associated with a motor and batteries. The holes were filled with sheet styrene and then white putty. After the putty dried, I sanded all the areas flat, removing the Academy logo on the bottom of the hull in the process.

The bogey sets were then added on the sides and I screwed in the front idler mounts. I also glued on the rear drive sprocket mounts. There are four different types of bogies, but they made it real easy by letter coding both on the chassis and the bogies. The good news is that all the roadwheels, idlers and driver sprockets have either soft rubber inserts or hubcaps to allow these wheels to be added after painting. I used the white metal drive sprockets from the Friulmodellismo track set, which also use the same soft plastic inserts. I cleaned up and glued all the roadwheels together and then sanded a very prominent ridge off the roadwheels using an emery board. Sheet styrene was then glued into the open sponsons, but I was not too careful here since the side shields would cover them later. The purpose of filling these was primarily for cutting off light that would otherwise show from the open hatch in the turret.

When I got ready to glue on the two parts that go on the front of the hull (D8 and D9), I noticed they looked pretty crude. I went to my reference photos and realized the parts were supposed to be representing adjustment nuts. I decided I could do a little better so I cut off the top adjustment nut and bolt and replaced it with a Hob-Bits set. Hob-Bits are small brass nut and bolt sets

was originally a Minicraft/Academy of Korea and that the kit was a clone of the motorized kit made by Tamiya of Japan. The kit was released under the Academy name and then they leased their molds to Modelcraft of Canada and re-released it under that name. In other words, this is truly an international kit. Oddly, Eduard of the Czech Republic has just released two great photo-etched sets for this kit, but they state it is for the Academy kit. The good news is that since the sprues are the same for both kits, the Eduard instructions work. The sprue numbers and letters match both kits. The track set I used comes from Friulmodellismo of Hungary, who recently moved from Italy and the barrel comes from Mike Dobiesz of the United States. It just keeps getting better! I really tried to find something from the UK, but there really isn't anything out there. Accurate Armour does make a decal sheet for

the Centurion, but these are for all the Marks except the Mk III, since they do not produce that version.

The Modelcraft kit consists of approximately 169 plastic parts molded in olive drab, plus a soft plastic sprue of 39 parts. The tracks are the non-glue, rubber band type. The decal sheet is very complete, with decals for four different countries, including British, Canadian, Australian, and Israeli Centurions. The Eduard photo-etch set for the Academy kit consists of four sheets totaling 289 parts, one of which is for the .30 cal machine gun, plus an Express Mask. The photo-etch armored shield set has two sheets of 46 parts. As mentioned, I also used a Dobiesz turned brass barrel for the Tamiya Mk III, which fits perfectly. The best part is the Friulmodellismo track set for this tank utilizes the newer wire type connectors.



23. The painted tank, including the number "3" panels, which were actually mounted on removable metal placards. 24. The weathering was a combination of lighter spray paint and oils, both as washes and dry brushed. 25. The tank commander was taken from a Royal Model set with thin solder wire added for the headset and microphone. 26. The gear (kit for our English cousins) on the back was from various sets including Accurate Armour packs, Armand Bayardi ammo cans and ammo crates. 27. Here you can see the decal placement. A little artistic license was taken to get everything to fit. The tail light reflectors were first painted white then enamel gloss red.

that are sold in all good hobby stores.

I also glued on a nut on the side.

Additionally, there are supposed to be several bolts on the face of these parts. I got these from a Modelkasten bolt head set. These two parts were then glued to the front of the lower hull.

The next and probably hardest part was to prepare the hull top for the photo-etch parts. There were a lot of little things that needed to be removed. The Eduard instructions are pretty clear on what has to go, but they did forget about the large mount points on the fenders for the side skirts. These also have to be removed if you are using the photo-etch side skirts. The down side is that there are no replacement tools for those molded on the

two parts and glued them on the remaining piece. These were then glued to the muffler housing and glued to the tank.

The rear fenders and mudguards were next to be added. This required cutting off most of the rear fender, part C13-14. Again, I left enough on to give the photo-etch something to stick to. I now went around and glued on all the storage box hardware. The front fender supports were added and the other small parts for the front and rear were glued on. The box that goes on the forward glacis plate was a little fiddly to assemble but I finally got it together.

I did use the kit tow cables. I almost



fenders. To solve this problem, I had to go to my spares box for an ax head and sledgehammer. The photo-etch set also includes options for the Mk III and Mk V models. After studying the Korean War photos it was obvious that there are two types of storage boxes on the fenders. There is an earlier type, which Eduard calls the Mk III. These are also the same types from the Mk IIs. I could be wrong, but I suspect the older style of boxes might belong to Mk IIs that were rebuilt as Mk IIIs. At any rate the Mk V boxes are also options for the Mk III. Since I wanted to build one of the tanks from the 8th Hussars I used the early boxes.

I next glued the hull top and bottom together. The front fit was very good and required no extra filling. The rear was not too bad but a little filling on the sides was required. I now started adding the photo-etch parts. I first made the deflector shield that goes behind the engine grill then installed it. Next were the muffler exhausts, which require a little work. I cut off most of the plastic exhaust, A8, but left a little to glue the photo-etch to. I then formed the

never use kit tow cables but I could not figure out an easy way to duplicate the double tow cables and heads that made any sense or that was worth all the trouble. I cleaned up the soft rubber tow cables, then split them so they would be separate like the real ones.



straps that were molded on the turret and the boxes. You get a choice of a plain mantlet or one with a cover. I chose the covered one since this is much more common. I did have to enlarge the hole in the back of the mantlet to allow the brass barrel to fit in. The barrel

That is one big turret

The turret was cleaned up and the two halves were glued together. Next, I glued on the top and positioned it carefully. If you take your time these pieces go together without any difficulty. For some reason, the top piece has no location pins. The good news is that it fits okay, but you will need some extra work here. After it dried, I sanded down the areas where the seams would show, put white putty on them and sanded again. If you decide to use the photo-etch parts for the smoke grenades, you will also need to fill in the two larger holes on either side of the turret front.

The side boxes need some cleaning up and I had to add a back made out of thin sheet styrene to the right box. Since I planned to use all the photo-etch parts as I did on the chassis, I removed all the handles and



Above left: A river crossing of the Han on the 20th of December 1950 conducted by the 8th Hussars. Note the trooper removing ice from the front. It looks like they used the tank as an icebreaker. The front markings can clearly be seen here, as can the damage to the front storage box on the glacis plate. Above right: This 8th Kings Royal Hussars' Centurion, on the North bank of the Han River, on 10 February 1951, is firing at a target on the opposite bank. The smoke on the right side of the photo is supposed to be a direct hit. Left: Another 8th Hussars Centurion on 20 December 1950, this time on the South side of the Han River. A very cold crew is brewing up "a copper." This tank might actually be "Columbo," but the name and numbers are not clear enough. It does have the removable number "3" on the side skirt. (All shots, NARA)

fits perfectly in the main opening with the correct tiny gap around the barrel. I now glued all the side storage boxes and the barrel/mantlet assembly to the turret.

Not surprisingly, considering its size, the turret will have almost as much detail added as the chassis. I started with the gas/water can on the rear. The kit provides a hollow one but I substituted a British water can from an Academy set. The Eduard photo-etch bracket #23 for this is wrong and does not fit. I therefore made my own bracket out of thin sheet metal. I built the wire reel assembly with kit and photo-etch parts and glued it on. I also assembled three extra track links from the Friulmodellismo set and hung them on the side of the turret using the photo-etch hangers. I used the kit handles on the rear of the turret, although there are photo-etch ones supplied. However, they are flat and, of course, the real ones are round.

The next big items were the smoke grenade launchers. As I mentioned, you have to fill the holes in the turret front if you plan to use the photo-etch parts. I took parts C3-4 and removed the plastic backing. I glued on the new photo-etch housing, 26 and 27, and the other small bits. A hole was drilled out in the bottom of the mounts and in the turret. A thin solder wire was glued in to simulate the main power cord. The mounting straps were glued onto the tube mounts and the launcher tubes were glued on (after drilling them out a little). This whole assembly was glued to the turret and the wire was glued into the hole in the turret. The final product looks very much like the real thing.

I started on the top of the turret with cleaning up the commander's hatch and replacing the handle with thin brass wire. I added all the different photo-etch

parts on the turret top, along with the hinges and straps on the side boxes. Holes were drilled in two of the antenna mounts to receive two 8-cm piano wire antennas. I built the third mount with the basket out of photo-etch, but did not put an antenna in it. The Besa machine gun barrel was drilled out and glued into the mantlet. The two fire extinguisher bottles were cleaned up and mounted on the rear of the side boxes using the photo-etch mounts.

The last item I added was a .30 caliber M1919 machinegun on the commander's hatch. The Mk III was not officially issued this machine gun. After the Injin River fight described above, a field modification was made when British tankers realized they needed the extra firepower when dealing with the Chinese mass attacks. This machine gun was included in the Mk V upgrade and the Besa coaxial machine gun was also replaced with the same .30 caliber machine gun. Anyway, I took one look at the Eduard photo-etch machine gun and decided I did not want to deal with it. So, I eventually used a Collectors Brass .30 vehicle mounted machine gun. I did use some of the photo-etch parts for the mount and ammunition box, which is not included in the Collector Brass set.

New skirts and what goes underneath

The Eduard photo-etch set is a must for this kit since the plastic skirts are way too thick. The first step was to modify the kit supports before gluing them onto the chassis sides. The heads have to be cut off per the instructions and all six supports were then glued on. Next, all the photo-etch handles and mounting brackets were glued on to the skirts. Oddly, the handles for the side skirts do

not come with this set. They come with the main photo-etch set. I stopped at this point, since I planned to paint the skirts separately because the tracks were to be put on after painting was complete.

The Friulmodellismo tracks are the wire connector type, which I really prefer over the older crimp type. I found that with this track, I did not have to re-drill the holes in the links, like I have had to do on the sets of smaller links. The best and fastest way to assemble the tracks is to pre-cut the wire into the correct length. By the way, I found the correct length to make them is just long enough to slip all the way in and not have any showing. I then could just slide in the wire. After one side was done, I went back and put a drop of superglue on each wire to keep it in. The whole operation for both sides only took one short evening.

Now for the painting

The tank was now readied for painting by giving it the mandatory wash of warm soapy water. The side skirts were stuck on 3 x 5 cards with masking tape and sprayed separately. The roadwheels were also painted separately by mounting them on toothpicks. The entire tank and separate parts were then sprayed with Tamiya XF-1, flat black. This was followed with a light spraying of Tamiya XF-27, black green. A wheel mask was used to paint the insides of the roadwheels. I then very lightly sprayed the upper surfaces with a very thin mixture of Tamiya 50/50 XF-61, dark green and XF-60, dark yellow for a weathering effect.

To weather the tracks, they were first soaked in Blacken-It for about 20 minutes. They were then given a wash of 50/50 black/burnt umber oil paint. After they were dry, they were scrubbed with a green kitchen-scouring pad to bring out the natural metal again.

I hand painted the mufflers with Polly Scale panzer red brown and the tool handles with Vallejo medium flesh. The tools and machine guns were painted with Vallejo black gray. The spare tracks were painted with Polly Scale rust and the mantlet cover was painted with Vallejo khaki.

For the markings, I used the very good kit decals for the Mk III "Columbo," which was involved in the actions mentioned above. The only area I am not sure about is the vehicle numbers. I have seen this tank referred to as 01ZR46. The kit decals do have a 01ZR45 and in one photo of the rear of this tank the number looks like it ends in 45, so take your pick. There are several photos of this guy in the reference material, so I tried to stay with its markings. I started with the Eduard masks that came with the photo-etch set. This is the first time I have used these and I love them. I have tried metal templates before, but was never satisfied with the results since I could never get them to sit flat enough to prevent underspray. The Eduard masks are very thin and stick just enough to mask, but not pull up the paint underneath. I painted a UN white star on the two side skirts and on the front box. There was no small star for the rear, so I used the kit decal for it. There are three number "3s" for the tank and they are actually mounted on removable metal plates. These have straps to temporarily attach them to different tanks. I therefore put the decals on a thin metal sheet and cut them out. I then glued them on separately after most of the weathering was done. The other decals were applied after spraying the areas with Tamiya X-22, clear. The whole tank was then sprayed with a semi-gloss clear coat of Tamiya paints.


Before proceeding with the weathering, I put the tracks on and installed the side skirts. The tank was then given a very thin wash of black oil paint. A few areas were then given a wash of burnt umber/black oil. The model was then dry brushed with a mixture of titanium white, sap green and burnt umber oil paints and the tools and machine guns with Rub'n-Buff silver. The lower areas of the tank were then very lightly sprayed with Polly Scale dirt. I added a few bits of gear on the back deck from my spares box just to add clutter.

For the tank commander, I used a single figure from the Royal Model British Tank Crew WWII set. I

built him straight from the box and added wiring for this earphones and mike using thin soldier wire. For the infantryman, I used one of the figures from the Dragon British Commonwealth Troops. I used the Mk III helmet and gave him an Enfield, which was still carried in Korea. They were both painted with a combination of oils and Vallejo paints. The shoulder flashes for the infantryman are for the Northumberland Fusiliers, which was one of the infantry units involved in the Imjin River battle. His stripes are from the new set of British rank made by Archer's.

We have a winner

I really enjoyed building this kit. I believe the

photo-etch parts are a real necessity, especially the side skirts. With the exception of the hull angle in the rear this kit seems to be as close as any to the correct size. I believe for the money you really can't go wrong, since even with all the add-ons, this kit is a lot cheaper than a comparable resin kit. So far, Accurate Armour has not released the Mk III, but I am hearing rumors. The new Friulmodellismo tracks are really great and I personally like the Dobiesz brass barrel, but it is not as crucial as either the tracks or the side skirts. 

—Jim Hensley

MMIR RECCE

Modelcraft Centurion Mk 3. Kit number 35-9009. Suggested retail price \$20.00.

Eduard Centurion Mk 3. Kit number 35303. Suggested retail price \$19.00.

Eduard Centurion Armour Shields. Kit number 35307. Suggested retail price \$19.00. Kits graciously provided by the manufacturer.

Friulmodellismo Centurion metal tracks. Kit number ATL-65. Suggested retail price \$30.00.

Collectors Brass .30 Machinegun, Vehicle Set WWII. Kit number 30-03. Suggested retail price \$9.86.

Dobiesz Brass Barrel for Tamiya Centurion. Suggested retail price \$14.95. This item is only available direct from Mike at Michael R. Dobiesz, 9803 Silver Lasso St., Las Vegas, Nevada 89123 <http://www.brassbarrels.com/>

References

Centurion in Action by Stephen Turnbridge, Squadron/Signal Publications, 1976. ISBN: 0-89747-046-X. A good source for general information on all the marks.

The Centurion Tank in Battle, Osprey-Vanguard 22, by Simon Dunstan, 1981. ISBN: 0850453984. Old, but still pretty good reference.

Centurion 5, Armour In Profile by Captain Michael Norman, Profile Publications, LTD., 1968. Unless you are building the Mk V, I would not bother trying to find this old and out of print booklet.

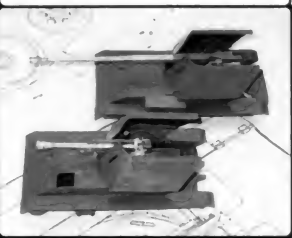
Tank Warfare in Korea, by Steven J. Zaloga, Concord Publications Company, 1994. ISBN 962-361-605-8. A must for the Korean War with a lot of good photos of the Centurions.

Tank War Korea, by Simon Dunstan, Tanks Illustrated No 14, Arms and Armour Press. ISBN: 0-85368-682-3. A few extra photos and few anecdotes on the Centurions.

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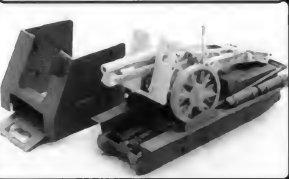
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Making the Most of My Motor Carriage

Improving and detailing
the Academy kit with
help from Korea



The newish Academy U.S. M12 GMC is a perfect candidate for a driver's interior and engine detail set. A good portion of the driver's compartment can be seen through the four driver's hatches and there is an abundance of grillwork around the engine that just begs for a detailed Continental radial. For this project, I added a Model Valley driver's compartment and engine compartment to the Academy kit. I was also helped along by some Eduard photo-etch and a set of AFV/Club T-48 rubber chevron tracks.

The Model Valley transmission and driver's compartment

As good as the Academy transmission and interior looks, this set just blows it away! The detail of the parts and their shape are definitely worth the moo-lah. The set includes a full cast outer transmission cover with the inside of the power train cast with it. Final drive housings are included with various levers, transmission, rear bulkhead, left side hatch with detail on the inside, a roof ventilator and a very nice gauge panel. A small photo-etch set is included, as well, with twenty-one Footman loops (tool tie-down loops) and two headlight guards. The conduit detail running along the side-walls is fantastic, as well as the detail of the floor and levers. Wow!

The front hull has to be trimmed away to mount the transmission cover. The Model Valley cover does not fit very well and there needs to be some gaps filled here. Parts of the inner lower hull will have to be trimmed away, as well.

The Academy front fender reinforcement brackets did not fit tight enough to the contours of the Model Valley transmission cover, so I made new ones out of styrene strip. Anything in a lighter colored material is my doing and I will point it out throughout this review. I spent a good deal of time thinning out the plastic fenders to make them look more to scale.

The rear bulkhead was a bit too narrow and left a gap at the hull sides. Given time, you could fill this with styrene stock as you can see it through the open hatches. The top edge ends up with a gap, as well. I thinned out the Academy kit lateral handles to look more in scale.

I saved the Eduard foot pedals for the parts box, as I knew the plastic ones would barely be visible. They looked plenty good from the hatch openings. Model Valley's gauge housing was adequately detailed and I chose not to use Eduard's intricate setup consisting of a clear sheet of dials to be placed behind a photo-etched panel. I mounted the stowage compartment in the right sponson and painted the whole interior section of the upper hull before adding both hull pieces together. This included the roof ventilator and gauge panel as well. The whole interior was painted white.

Model Valley's box top photo shows the tubular steering cross-member located at the top of the power train in black. In photos that I have seen, these have been painted white with the rest of the interior. I added some dirt to the floor from a mix of sandblast sand, baking soda and Durham's water putty. I added some chocolate and black craft store

acrylic paint to this mix. The seats were painted Tamiya khaki with a brown and black wash followed by a dry brushing of lightened base coats.

All in all, I feel this set is well worth the money. Aside from a few gaps to deal with it was easy to assemble and looks great!

The Model Valley engine compartment and engine

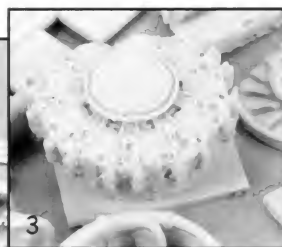
This set is also impressive. The parts are finely detailed and beautifully cast. Included with this set are the engine and associated parts, the engine mounting cross-member, four compartment walls (of which two are sidewalls). The front wall and the floor are cast as one piece. The rear is separate, with the option of having the rear access panel on or off. A new resin engine deck is supplied, although my part was a bit undersized when compared to the Academy part.

Also included are two nicely detailed rear crew seats. These make the kit seats look like concrete slabs! Rounding out the ensemble are two rolled up tarps, two air-cleaners and a detailed wooden fuse crate.

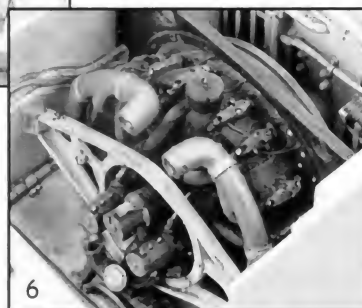
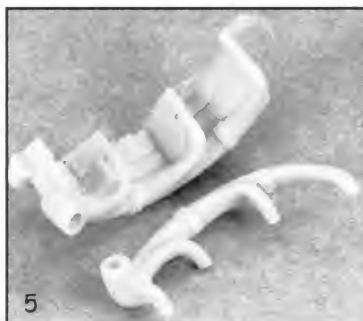
The instructions in both sets consist of color photographs with numbered parts and a black and white sheet showing what modifications to make to the Academy hull. For the small amount of parts in these kits, I felt the instructions were adequate.

You will need to remove some of the kit hull reinforcement moldings on the inside of the lower hull in order to fit it in the engine compartment. I did this with my X-acto knife and a sander I made up from an old toothbrush and some adhesive backed sandpaper.

There was a bit of warping in the compartment



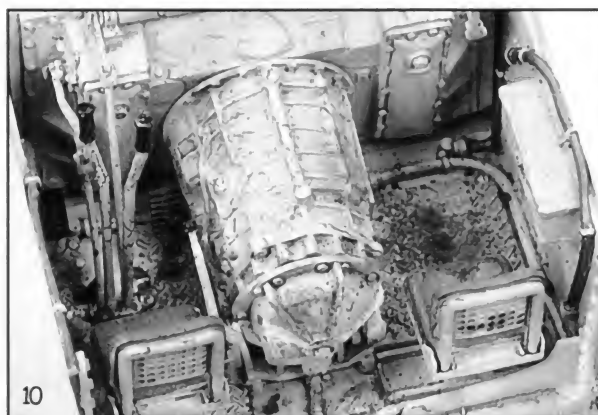
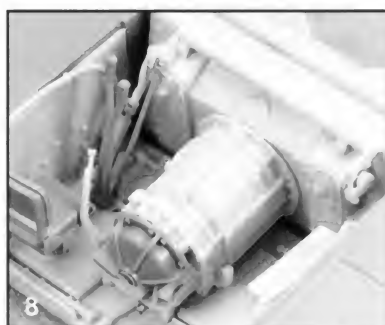
1. The Model Valley drivers compartment parts and transmission. 2. The engine compartment here in all its glorious detail. 3. I had to show this close-up, check out the fuel lines and spark plug wires. Whatever clean-up there is; it is worth it.



4. The engine compartment is cast with the floor and three of its walls together. There is a bit of warpage here but it's nothing a little hot water can't handle. This resin holds its shape and is very friendly to work with. The fragile and nicely detailed cross-member can be seen here as well. 5. A little

time needs to be spent separating the exhaust manifolds from their casting runners. A brand new x-acto blade and a little patience will do it. Watch those fingers! 6. The assembled engine in all its glory. Hey, hand me the 9/16 open end. I love those nicely detailed oil coolers. 7. Some of the reinforcing ribs on the inner lower hull will need to be removed in order to fit

the Model Valley parts into. I used a sharp x-acto blade and a sanding tool I made up from an old toothbrush and some adhesive backed sandpaper. 8. Here is a view of the assembled and unpainted driver's compartment. The shapes look much better than the Academy parts and the sidewall and floor detailing is absolutely fabulous. 9. I could not avoid getting gaps in this area, maybe you can. A little bit of filler, a little bit more and a little bit more... 10. I tried to make the driver's compartment look lived in, as they pretty much were. Here is the painted and finished interior. 11. Here is The Eduard photo-etched set for the M12. I used some parts and some I did not. I thinned out the edges of the Academy sight shield and felt it looked plenty good. You have to glue two photo-etched panels together to make up Eduard's part and this leaves a gap to fill all the way around the shield. Like I said, the kit part thinned out is plenty good. I did use Eduard's gussets though, which really adds to the realism.



should be obvious strips of bolt-hole detail where the engine deck mounts. Once the compartment was in place, there ended up being a gap across the width of the hull just behind the driver's hatches. I filled this area with styrene square stock.

The engine assembles with no glitches. The fit of the parts is good, with a small amount of fiddling with the intake manifolds. I haven't measured it, but in my opinion the Continental radial engine should sit at more of an angle than it does.

The exhaust manifolds are a bit of a challenge to part and clean up from their casting runners. A brand new X-acto blade will be very helpful here. Oh, and don't drop that bugga between your legs!

Another missing detail, which I felt was a major one, was the missing exhaust manifolds routed to where the mufflers enter the lower hull sides. The exhaust just blows out the rear of the engine compartment toward the gun mount. This should connect with the outlets on the hull.

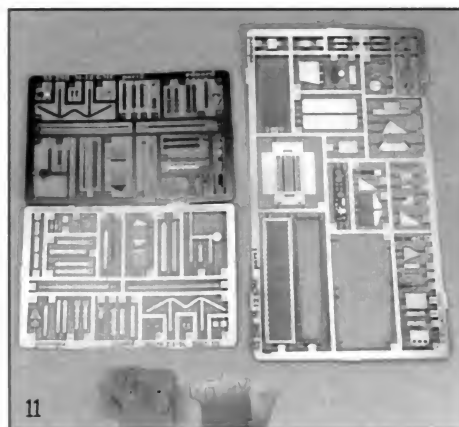
A nice pair of square air cleaners is provided. You will have to add the bolt detail where the upper and lower halves would connect on the real thing. This could be made from wire or whatever. I let it go on this kit and will make some up later on.

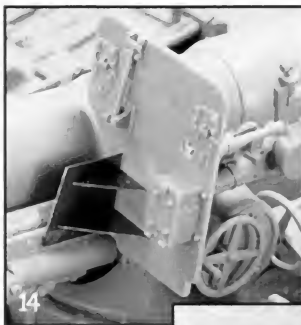
The crew seats

Model Valley gives you the top and bottom seat cushions and has you add the curved tube brackets from the kit seats to mate them together. The box top shows them already assembled, but that is not how they come. These have to be glued together with brackets you trim off from the kit seats. This makes for a very fragile joint. I carved off the cast-on and bent up my own seat mounts from wire of

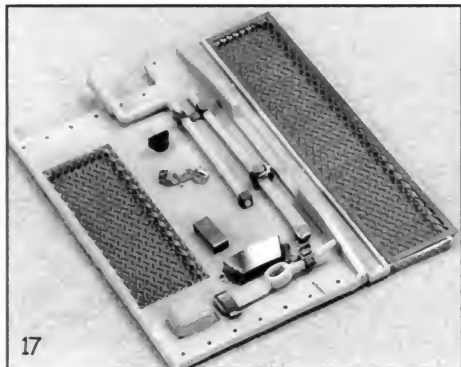
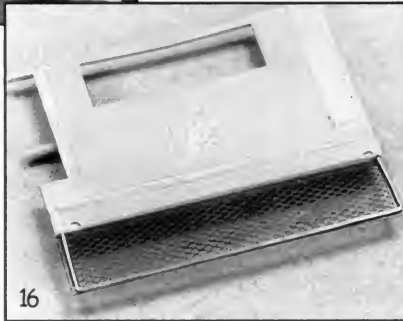
walls and a certain amount of this is to be expected with resin. This resin is very friendly and after a bath in hot water, it stayed right where I put it. Once heated, I installed the walls into the prepared hull and clamped the sides with clothespins while it cooled. The front wall of the engine compartment is awesome; the oil cooler detail looks great on the finished model.

One important detail that is missing, in my humble opinion, is the mounting surface at the top of the compartment wall sides. There





12. The AFV/Club T48-tracks. These tracks are absolutely beautiful and come with extended end connectors that I forgot to show in this photo. The M12 usually did not use the duckbills because of the reinforcement bracket going from the hull side to the bogie truck. I have seen where they cut this bracket off though and used them anyway. 13. Some of the photo-etched goodies can be seen here with a peek into the driver's compartment, as well. I left the spare track rack empty and planned to just toss a spare link in when the model was finished. 14. The only photo-etch I felt was necessary on the gun shield can be seen here.. 15. Instead of carrying away all the plastic brackets from the kit's gun cleaning rods, I substituted styrene rod instead. If you look closely you can see the driveshaft coupling through the right side hatch. 16. This photo shows the reinforcement wire I added under the engine screen. 17. Model Valley gives you a replacement resin engine but I chose to carve off the Academy part and use it. I drilled out the engine deck mounting holes as I planned early on to display it off the vehicle. 18. I added bolt detail to the travel lock and modeled it open. I also added MV lenses no.116 and front hatch props made from wire. 19. Here is a shot of the filled engine compartment and a peek into the driver's compartment. I added a couple wrenches to the hull side; someone had to do it.



and the engine block is black. I used Model Master aircraft interior black for the block. The bolts on the cylinder heads and block appear in the tech manuals to be brightly colored. Because military equipment is usually high-grade stuff, I figured they would be stainless steel and painted them that way.

I painted the oil coolers on the front wall and the exhaust manifolds on the engine Model Master jet exhaust. It is my opinion that most of these vehicles did not exhibit much rust as they were not in service all that long during the war. I feel that there should be more dirt than rust. I have been around many antique cars and military vehicles in the past and a 50-year-old vehicle will have a lot more rust on it than one that has been in service only a couple years. I refrained from exaggerating the rust on the exhaust manifolds. I did find a photo of an original Continental radial in the M4 Sherman book by Motorbooks and those manifolds are pretty rusty.

I have seen military oil filters on different vehicles in orange and in gray. I originally wanted to add some color, but I used gray instead. The various hoses and piping are usually between three different colors. Hard piping is usually painted the same white as the walls. Some of the flexible electrical conduits are braided stainless, which has a satin chrome

finish. Most of the other lines or wiring are black.

Now... I assumed the fire extinguisher outlets would be the older Bakelite type plastics, which would probably be black. However, I see on page 32 of Pete Harlem's book on the Sherman that he has them in red. I cannot get to them now, so mine will stay black. A final dusting was drybrushed on with Tamiya buff.

Overall, I would not hesitate to purchase this set. It was a pleasure to build and painting it to look nasty was a beautiful experience. Enough with the positive vibes already...

AFV/Club T48-Track with extended end connectors

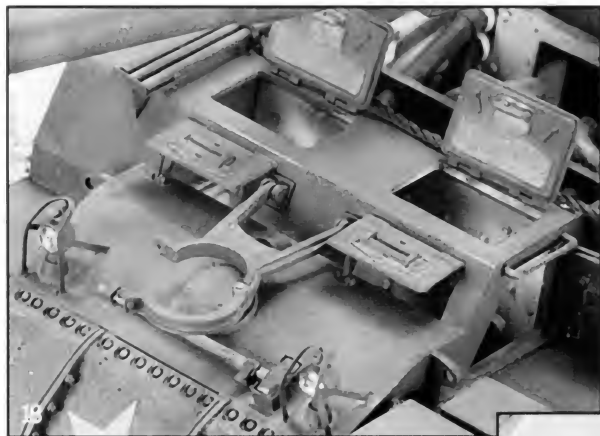
These tracks look great! The detail on the end connectors will knock you out. I did have one small issue with this set. This was the length of the guide teeth. When a tooth is directly over the return roller it hits on the roller shaft and will not let the tracks rest on the roller. I could not seem to stagger them so they were all on either side of a roller. One was always hitting that darn shaft. The fix: cut the end of the guide off just a wee little bit.

Because the duckbills interfered with the vertical brace running up from the rear bogie truck, they were not always installed. However, while looking through Squadron's book on U.S. self-propelled guns, I did find a photo where they torch cut these braces off and added the duckbills. As I look back now, I wish I had done the same thing to this model (using a X-acto blade and not a torch, of course).

You can't deny these tracks are beautiful, but the length of the teeth still puzzles me. Perhaps it's a matter of accurate to scale and not accurate to the model. I need to get over to that old M7 at the local VFW hall and measure those buggers up.

Eduard photo-etch set

This set has some nice parts in it. The engine screens fit like a glove and so did most of the other pieces. As with most sets though, I find some parts to be either out of scale or redundant. I only added the parts I felt added to the scale and detail of the model. In this case, I found that photo-etch parts 53, 50, 7 and 8 were not necessary



the same diameter. These were then super glued to the back of the resin seats. I felt it was easier to go this route than to keep fiddling around and have the things breaking apart in my hands.

The paint

Painting the radial engine ended up being somewhat frustrating as all I could find were tech manual drawings or black and white archive photos. The box tops give you a pretty good idea as to what color to paint it, but I was suspicious of some of their choices. When it comes to engine compartments, I think most of us try to make it look interesting by painting things as colorfully as possible. In reality, engine compartments are pretty boring and usually very dusty and dirty.

The basic engine compartment walls are white



20. The nicely detailed seats and fuse crate can be seen here. 21. The model looks complete with all its innards filled up. I raised the gun to an extreme angle only to help display the engine for this photo, it could never be fired this high. That is why they sometimes used ramps. 22. This photo shows the upper edge detail of the gun carriage, which does not match the Eduard parts. Eduard also gives you a round end piece for the gun pivot shaft, which

you can see in this photo. It is not needed either. 23. Here is a shot of the front left fender mounted stowage boxes on the Aberdeen M12. There are no latch details here as Eduard has them but some M12's (may) have had them. I have seen photos of M12's without any boxes at all. The fitting on the right of the drivers hatch can be seen here, which looks to be a standard hatch retaining catch, nothing like the Eduard piece, which looks like a handle.

when comparing them to the photos I took of the M12 at Aberdeen proving grounds. The bolt detail is appropriate, but the raised rail detail is not, at least on this gun. The right end of the shaft that the gun pivots on does not show any detail, either. I left this part off.

Once I thinned the edges, Academy's gun sight shield was every bit as good as the photo-etched part. Eduard has you mate two photo-etch panels together and when you do, you have a nasty seam to fill. I used the kit part, along with Eduard gussets.

Another thing that concerned me was the left front fender stowage box area. In photos I have seen, the hinges between the boxes and the latches are just a piece of metal welded to the top. These are just long enough to get your finger under to open the lid. Academy's box art even shows it this way. Eduard has the latches on the outermost side with full hinge detail and locking levers. I put them on as Eduard instructs, as I may have missed something in other photos. Some do not even have these boxes.

Another small issue is part 19, which appears to be some sort of handle. From what I can tell from my reference photos, this part is actually the "hold open" latch for the left side door. This is the same thing as on the turret of a Sherman. This part doesn't even come close to that. At this point, I was starting to feel guilty avoiding some of these etched parts, so I put it on anyway! I can always pluck it off when I find out for sure...

As I was dry fitting the gun cleaning rod stowage mount, I noticed there are two mounting holes under the rods for the kit's plastic part. This should be filled, preferably early on in the build, as it can be seen

under the photo-etch parts. I just glued in some styrene rod. I wished I would have done it earlier, so I could have sanded it smoother before adding the photo-etch parts. Eduard has you trim away the kit rod's brackets and then use the rods with their photo-etch parts. I just took styrene rod and used that. This eliminated a lot of unnecessary carving. The kit rods were roughly .050 and my styrene rods were .047 so it was pretty close. Heck, most round plastic parts are a touch oversize anyway.

Overall the Eduard set is good, you get some very nice engine deck screens and a variety of other bits and pieces.

Conclusion

Well that about sums it up. Here are a few detail sets that will knock your leggings off. There is not much more you could do to fill this bouncing, earth shaking son of a gun up. Enjoy! ☺

—Barry "M29" Beaudry

MMIR RECCE

Model Valley M12 Transmission for the Academy U.S. M12 GMC. Kit number MV004.

Suggested retail price \$20.46. **Model Valley M12 Engine Set.** Kit number MV003. Suggested retail price \$23.96. Both kits graciously provided by Model Valley's U.S. importer, Squadron Mail Order.

Eduard M12-GMC photo-etch detail set. Kit number 35298. Kit graciously provided by the manufacturer. Suggested retail price \$22.98.

Academy M12-155mm Gun Motor Carriage. Kit number 1394. Suggested retail price \$35.00.

AFV/Club T48-Track. Kit number AF 35038. Kit graciously provided by the manufacturer. Suggested retail price \$15.98.

References

U.S. Self Propelled Guns In Action by Jim Mesko, Squadron Signal Publications. ISBN 0-89747-403-1. This reference has a photo of a M12 running the extended end connector track.

Modeler's Guide to the Sherman by Pete Harlem Ampersand Publishing Company, Inc.

M4 Sherman by Michael Green, Motorbooks International. ISBN 0-87938-803-X. This book has a photo of an original Continental radial.

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U.S. Military Tracked Vehicles by Fred W. Crismon, Motorbooks International, 1992. ISBN 0-87938-672-X. *Sherman: A History of the American Medium Tank* by R.P. Hunnicutt, Presidio Press, 1994. ISBN 0-89141-080-5. There is always good stuff in this book.

Teeny-Tiny Tankette

Building the FineMolds Type 94 “TK” Light Tank



Japanese Tanks Pt. 3

The Type 94 Tankette had a very unusual beginning for a tank and its design grew out of a need for a simple cross-country vehicle. In the 1920's the Japanese Army had a requirement for an ammunition carrier. They wanted the carrier to be able to go, more or less undetected, into isolated locations to resupply units. Looking for a possible solution to this requirement the Japanese purchased a British Carden-Lloyd two-man armored vehicle. However, the Carden-Lloyd came up wanting and the idea of copying it was abandoned. The Japanese then decided to go out on their own and develop a vehicle to fill this requirement. The result was the Type 94 Tankette.

The development of the Type 94 began with a prototype being constructed by the Tokyo Gas and Electric Industry in 1933. The initial trials proved the vehicle to be very versatile and a speedy little guy to boot, with speeds of over 45 kph. Based on the trial results and its estimated low production cost, it was immediately ordered. There was also an armored tracked trailer that was designed to go with the Type 94 to satisfy its logistical requirement. I have heard a rumor that FineMolds may also be doing this trailer. Because of the Type 94's narrow chassis and low weight it was able to be used to tow this trailer around the narrow jungle trails. It remained in service long after tanks of a similar type had been dropped from most European

Armies.

The Type 94 Tankette was primarily deployed in tankette companies within Infantry Divisions, both in the role as an armored weapons carrier and tractor-trailer vehicle. However, since these little miniature tanks were readily available and the only organic armor to the division, they tended to be deployed as tankettes and not supply hauling vehicles. In China, this role for the Type 94 was very successful since the Chinese had no armor to speak of and very limited anti-tank capability.

In 1936 an improved version of the Type 94, with the rear idler enlarged and lowered to the ground, was built and this led to the Type 97 tankette, which was the successor of the Type 94. A total of 842 of the little Type 94's was eventually built.

The Type 94 had a crew of two very small Japanese tankers (hopefully very good friends), one being the driver and the other the commander/machine gunner. It was powered by a 32 hp four-cylinder gasoline engine and armed with one 7.7 mm machine gun.

The new FineMolds tiny tank kit

This is a very small model and it reminds me of building a 1/72 scale kit. This kit is up to the high standards I have come to expect from FineMolds, which to me has become one of the best plastic kit manufacturers currently in the business. The kit is molded in olive drab plastic and consists of four sprues. There are two rubber band tracks but they are well made and besides there is no way I would

want to even attempt to build individual links this small. There is also a photo-etch set of very good quality and an extensive decal sheet. The instructions are almost completely in Japanese, with the exception of a few English words here and there. Most of the labels in English are for painting instructions for the detail parts. There is also a four-page painting guide, which again has some basic English. An interesting feature in this guide is a conversion chart for what, I believe, to be Tamiya, Humbrol and Gunze paints. At least I figured out the Tamiya colors! The molding on this kit is simply exquisite. It is some of the best I have seen and there is very little in the way of seam lines and a few release marks, most of which are hidden in the construction.

Very simple construction

I started with step one, which has you assemble the drive sprockets, bogies and idlers. I did clean off the roadwheels with an emery board, because their small size required a little careful work. The hull is u-shaped, with the sides and bottom molded together. I glued on the front and rear panels, then the top. The fit was perfect and no seam filling was required. The next thing was to attach the hatches and the driver's compartment. You have the option of leaving all the hatches open but without any interior, I chose not to. The fairly complex suspension system was tackled next without any difficulty. Pay close attention to the instructions since there are a lot of similar parts. The fenders have photo-etch braces that are really neat. The bottom of the supports have tabs, which are folded over on the bottom. The left fender has three photo-etch supports, while the right fender has one that is



1. The main pieces of the hull have been glued on here. Notice the right fender braces in photo-etch. There are tabs on the bottom of them that fold underneath the fender. 2. The right fender has one brace that is different and has a small notch to allow the tools to sit in it. The box that sticks out of the side of the hull has to be glued on before the fender can be added. 3. The machine gun in the turret has a complete breech assembly but care must be taken when attaching to the rear of the mantlet. 4. The suspension is very delicate and has a number of pieces so pay close attention to the instructions. 5. The tracks are of a glueable type but be careful not to

use too much or it will melt. The hull and turret are complete except for the screen over the muffler. 6. This view shows the tools and jack assembly. The license plate on the rear is the larger one of the two you are given a choice to use. I hollowed out the taillight to add an MV red lens after painting. 7, 8. Two more views of the finished model. In shot eight, the screen over the muffler has been temporarily added for painting. Notice the tabs, which will insert into the fender and be bent over when the screen is permanently attached after painting the muffler.



hollow brass tube. I decided to leave the turret open so you could see the gun breech and the inside of the top hatch, which has a very detailed interior that is worth showing off. Too bad there is not more of the interior.

different. This is photo-etch part 4. It is correctly labeled in the instructions, but I missed it the first time. Once all the braces were on, I glued the left fender on. Before the right fender can be attached, part A26 needs to be glued on.

I assembled the muffler and glued it on the fender. There is a photo-etch screen that goes over the muffler. FineMolds kindly furnished a form to bend it around it. There is also a brace, part A23, that needs to be attached once the screen is in place. I wanted the screen and the brace on for the initial camouflage painting, but removable later. I just attached both without gluing. This allowed me to paint the muffler later.

Twinkle, twinkle, little star

The tools were cleaned up and glued to the right fender and side of the vehicle. There is a star that goes on the front of the tank and it has a sprue attachment that has to be cleaned up before using it. The only problem is that the thing is very small. The rear of the tankette has a number of parts, including two different sizes of photo-etch license plates. I hollowed out the taillight so I could put a red MV lens in after painting.

The turret is pretty simple with just two halves to glue together. I cleaned up the joints and added the top piece. There is a complete machine gun with a scope. That item requires some delicate work to get together. The only problem I encountered was getting the rear part of the gun to match with the front ball assembly. You have to be very careful not to get glue on the ball, part A13, or you will not be able to adjust the position of the gun. I also drilled out the gun barrel and replaced it with a very small

The next step was to attach the bogies, return rollers, drive sprockets and idlers. The track is rubber but the new glueable type. I was not sure, since the instructions are in Japanese, but I gave it a shot and it worked with a little liquid plastic cement. The first one worked perfectly but the second one I got a little too much glue on and the tab came off. I was able to use it anyway, but be careful here.

There are two pieces of photo-etch, parts 5 and 7, which for the life of me I could not find in the instructions or figure out where they went.

Does not take much paint

As I mentioned, the painting guide is very complete but also sadly almost totally in Japanese. I did figure out they recommend Tamiya colors for the green, yellow and brown, but there was no equivalent Tamiya color for the tan. I decided to give it a shot and try their recommended colors. I started by spraying the entire vehicle with Tamiya XF-11 J.N. green. I then sprayed the camouflage pattern on using Tamiya XF-64 red brown and Tamiya XF-59 desert yellow. Lastly, I sprayed the yellow cross, which the Japanese used in their early camouflage pattern, using Tamiya XF-3 flat yellow. I painted the roadwheel rims, rear license plate and horn with Tamiya XF-1 flat black. I sprayed the tracks with Polly Scale panzer red brown and painted the muffler and exhaust pipe with the same color. The tools and machine gun were painted



with Vallejo black gray and the handles for the pick and shovel were painted with Vallejo medium flesh. I liked the markings for the 5th Tank Battalion, Shanghai, China in 1937, so I sprayed the areas where these decals were to go with Tamiya

X-22 clear. Once the decals were on, I used Solvaset to settle them down. After the decals were dry, I sprayed the whole tank with a 50/50 mixture of flat and gloss clear to tone down the gloss and give the tank a light sheen.

The weathering process then began with a wash of very thin black oil paint. Since the tracks are rubber I gave them a wash of Tamiya XF-1 flat black instead of my usual oil wash. The reason I did this is that I have found regular thinner can dissolve rubber and soft plastic. I did not want to take a chance on these tracks since they are the glueable type.

Wanted: a very small Japanese tanker (non-smoker)

I absolutely had to have a figure with this tank to show off its diminutive size. I chose a FineMolds tank crewman, which would fit in its tiny turret. I had to alter his arms to fit the hatch, but otherwise he came straight from the box. I painted his face with oil paints and his uniform with Vallejo paints.

The base is a simple one made from sheet styrofoam

which I cut out with a hot wire. I then put a mixture of Cellucloy and tile grout and burnt umber acrylic paint for color. I sprinkled a mixture of gravel before the mixture was dry and pressed a small tank in it to put tracks in it. I then gave it a wash of acrylic burnt umber and dry brushed it with oils.

Results

This was a very easy kit to build, despite its small size. I built it in two evenings and spent a couple more painting and decaling it. The quality of the latest FineMolds kits is really outstanding. I suspect there is a lot of TLC being put into these kits by FineMolds and I hope to see more from this manufacturer soon. The only thing I could possibly think they did not include would be an interior. They have an excellent one for the Type 97 Tankette kit they make. Other than that, this was a joy to build and I highly recommend it.

— Jim Hensley



MMiR RECCE

FineMolds Imperial Japanese Army Light Armoured Car Type 94 "TK." Kit number FM17, Suggested retail price \$24.98. FineMolds Imperial Japanese Tank Crew. Kit number AF8. Suggested retail price \$8.32. Both kits graciously provided by the manufacturer.

References

Japanese Combat Vehicles of W.W. II, Ground Power No. 30, Tokyo, Japan, 1996. A hard to find but excellent source of photos, although entirely in Japanese.
Japanese Combat Cars, Light Tanks and Tankettes, AFV Weapons Profile #54, Hara, Tomio LTG (Retired), Profile Publications Ltd., Windsor, UK February 1973. This is one of the few reliable sources in English of Japanese armor development.

9. Although these are rubber band tracks they are not bad once painted. The base was a simple one made out of sheet styrofoam covered with a mixture of tile grout and Cellucloy. 10. After painting I removed the screen so I could paint the muffler Polly Scale panzer red brown and weather it before reattaching the screen. 11. I really did not appreciate the photo-etch fender supports until painting was complete. This is just another example of the quality of this kit.

12. The tools were first painted with very dark gray Vallejo paint, then dry brushed with Rub'n-Buff silver. The handles were painted with Vallejo medium flesh, I know, strange color name but it looks pretty good after adding a wash. 13. The little star on the front was somewhat of a pain to clean up. I am not sure why it was not molded on in the first place. 14. The rear taillight was enhanced with the red MV lens. The detail on the inside of the hatch forced me to leave it up.



A Peek at What's New on the Figure Front!

Mini Men

We're a little light this time around, but this will give us a chance to take a rest and skip around the market a bit, and maybe even play a little catch-up. Check it out.

Custom Dioramics

4010, U.S. Tank Mechanic (1), is your basic US tanker kneeling with a wrench. He's wearing the one-piece coverall and the standard football style helmet. This is perfect for any repair scene and he even has the appropriately pissed-off look on his face! The only problem is that the wrench should be a Langstrom seven-inch Gangley wrench with the Fidley sprocket head and not the Langstrom seven-inch Gangley wrench with the Fidley SOCKET head. Man! How could they miss something so obvious? [This has been a joke. If this had been an actual criticism, you would have been instructed by local civil authorities to seek shelter in an appropriate facility]

4013, U.S. MP Red Ball Express (2), is based on a famous photo of a Joe directing traffic. In the photo, a sign looks over him with the words "Red Ball Express," hence the title. He wears the common M41 field jacket and buckle-top boots.

4017, U.S. Infantry Wounded (3), is a single GI striking a pose that seems to imply he's hailing a cab. His left arm is in a sling and his sliced-up sleeve is sculpted dangling at his side, which is a pretty neat feature. The bloke is wearing the popular tanker's jacket and low boots with gaiters. He would look great in any kind of traffic scene, maybe even with the guy above?

4018, U.S. Recon Team WWII (4), gives us a double dose of GI love. You get two guys out in front crouching down. The kneeling dude wears the tanker's jacket, gaiters and sports a nifty pair of goggles on his helmet. Oddly, his buddy is dressed in the single-piece coverall, which is sort of an odd choice for a combat excursion. However, this certainly increases his versatility, he could be part of a rear-area action like the Ardennes and the conversion potential is large.

4019, U.S. Sniper WWII (5), includes just a single figure and he's decked out in the M41 field jacket and buckle boots. He's also wearing a full set of web gear with a pack and a shovel. All of the various gear is sculpted to a T and we especially liked the execution of his front cartridge pouches. We're not sure why he's labeled as a sniper (his rifle is the standard M1 Garand, as opposed to the Springfield M1903A4 sniper rifle), but a smashing effort nonetheless.

LSA Models

3506, Russian & Prisoner (6), depicts a scene that could be anywhere in the east in 1945. A Russian officer is herding a captured German Hitler Youth down a city street. The set includes both the figures and a section of street. The Hitler Youth is appropriately small in stature and the Russian guard carries a captured 7.92mm Volkssturmgewehr in addition to his own PPSH sub machine gun. Both figures are cast in white metal and the base is in resin.

3507, Commando's wading ashore (7), contains two half figures with a base that simulates water. Both figures are depicting wading ashore on any one of the Brit WW2



beach landings. They both have full kit and one is armed with a Bren gun, while the other sport a Lee Enfield. These are, again, white metal figures with the circular water base being made from resin. The whole concept here is really neat and we can't ever remember seeing anything like it before.



Michael Roberts

54-004, Private E. Company 506th PIR 101st AB June 1944 (8), is really something special. This very intricately sculpted miniature is packed with exquisite detail. He is outfitted as a D-Day trooper and is complete with all the small features that distinguished that group. The netted helmet, jump knife, leg tapes, gas mask bag and cloth ammo bandoleers are all present. The detail even extends to his insignia; the distinctive 101st Screaming Eagle patch has been rendered right down to the words "Airborne" across the top! The American flag patch is also similarly rendered. The figure is presented in resin and white metal. Both the hands and the rifle are white metal and are molded together for a nice snug fit to the weapon. The sling is also integral to the part. A small, square base is also provided.

The figure is a true 54mm, making him pretty much spot on to 1/32nd scale. This means he'll tower over most other 1/35th figures, but we see him as the perfect stand alone miniature or an outstanding compliment to a knocked-out German vehicle.

Model Victoria

This is the first visit from MV to Mini-Men. What took you so long? As you may have gleaned from the front of the mag, Model Vic is an Italian company that deals exclusively in WW2 Italian kits, figures and accessories. **4043, Italian**

"Semovente" Crew (9), is one of the latest releases from them and is a three figure set designed specifically for the Italeri M40/75.

The sculpting is first-rate overall (the commander even sports a nifty goatee) and all three dudes are depicted wearing the one-piece coverall. Two wear the Italian billed field cap, while the driver figure gets the standard overseas type cap. Incidentally, this last guy fits perfectly into the kit's seat.

Model Vic has recently released a very elaborate conversion and update set for the Semovente and these guys are fated to go with your model.

Resicast

It's a little bit of catch-up this time with Resicast. Their recent spurt of new releases forced us to pick and choose throughout the line—just out of sheer volume! So here are the gaps.

35557, Airborne Scout with Sten (10), is a Para-type complete with Sten gun and beret. He's lightly equipped with a single bandoleer of Sten ammo (not something seen all that often on figures) and also carries the rarely seen lengthened RAC holster for the Enfield Mk I revolver.

35559, Motorcycle MP at Ease (11), is just that. A simple, standing figure posed leaning against the object of your choice. The box photo shows him leaning against a Cromwell (the fit appears to be perfect), but it seems that it wouldn't be too hard to modify him to mesh with a fence post or another type of vehicle. The sculpture is rendered with the extra long wool socks and leather gauntlets issued to motorcycle riders. He has one of those gloves off and placed in his other hand, which is a nice touch.

35562, "Have a Smoke" (12), makes up an interesting little vignette depicting two soldiers sharing a pack of fags. Their gear puts them in the tank crew mode with one figure sporting the RAC Holster and the other a one-piece coverall. The two would go great with the previous figure. "Smoke 'em if you got 'em!"

35564, Tank crew leather jerkings (13), this is three half figures, a driver, commander and loader, and each wears the distinctive long leather vest known as a jerkin. All the figures come with goggles and the box top depicts them in the hatches of a Cromwell. They would actually go with just about any tank in service with the Brits in Northwest Europe.

35565, Tankman on turret denim overall (14), strikes a casual pose with one leg up and reaching for a smoke. He also wears the one-piece coverall. That group is getting bigger by the minute...

35566, Soldier seated (15), rounds out the lazy group. This dude is a full-figure wearing a jerkin and a steel hat. You get a choice of heads on this one, with the alternate being a head with a tanker's beret and goggles. On the box top, he's posed on the fender of a Cromwell, but he would go just about anywhere.

35568, A taste of France, 15th Scottish Infantry Division having a drink (16), is yet another instant vignette. The set contains two great figures sharing some wine. Both have their tin cups at the ready and they have been sculpted to represent the distinctive headwear of the unit. The figure with his Jerkin swung back is a stunner. The execution of the Jerkin and the arm and hand in the pocket is particularly well-done.



S&T

16007 (120mm) SS Rottenfuhrer Ardennes (17), is a truly great figure. The sculpture was obviously inspired by the famous series of photos showing grenadiers of the 1. SS Panzer Division working their way through an abandoned U.S. convoy outside of Poteau during the Battle of the Bulge. The piece depicts a corporal from a single frame of the series as he signals to those behind him. This dude is decked out in all the appropriate SS gear, like the StuG 44 and associated magazine holders, split finger mittens and toque (that thing around his throat). The level of detail is quite high and the molding is out of this world. The figure comes with a detailed base and this contains several indentations to allow him to sit realistically on it. The StuG 44 is a special treat, although you will have to fashion a sling from thick paper or foil.

The stuff from S&T just keeps getting better and better. They have many new items on the horizon and we look forward to them all!

Tamiya

Although Tamiya has nothing new to offer in the way of a stand-alone set, we thought we'd give you a peek at the figures contained in their new Sherman kits. The kits actually share two of the same figures, but provide a third unique figure to round out the group. The first set (18) comes with the new 75mm Sherman. The running figures on the ends are the common items. All the figures are suited up for cold weather, with the BAR gunner wearing the M43 jacket, muffler and gaiters. The running rifleman wears the distinctive Macintosh jacket and buckle top boots. The third figure wears the wool overcoat and gaiter covered boots.

In the second set, sold with the 105 Sherman (19), the unique figure is outfitted exactly the same as the 75 set, but he holds his rifle at the ready instead of firing.

Not too bad for plastic and maybe the figures will make the difference in your decision to buy the kits.

Warriors

We're skipping around and catching up with the warriors at Warriors. Here's the current sitrep.

35388, WWII Italian Infantry (20), provides two guys and although the box doesn't clue you in on it, one is a standard infantryman, while the other is an Alpine trooper. He is distinguished as such by his cleat boots, high socks and nifty feathered hat. The other cat with the Mannlicher-Carcano M1891 rifle is a plain 'ol Italian foot soldier of the type that saw combat in Russia. A real interesting choice of subjects.

35389, British Desert Rat Tankers (21), is a set of three Brit tankers decked out in desert duds. You get two half figs and one full standing figure, presumably for the turret. This set is particularly useful if you're going to mate all the latest Eduard Crusader stuff with the Italeri kit.

35391, Modern Russian Infantry (Chechnya) (22), is one of the more unique figures that we have seen. He's a single Russian in





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a relaxed pose and he represents all the latest in Russian battle fashion. He sports a camo helmet cover, later generation flak vest and the rarely seen split finger mittens. A very nice AK rounds out his ensemble. If Chechnya doesn't ring your bell, it wouldn't take much to work him into a KFOR scene.

35393, Italian Bersaglieri Sergente (23), isn't the type to pop up any day in the world of 1/35th scale miniatures. The sergeant from this elite Italian rifle unit is rendered with all of the equipment unique to this unit. The distinctive cavalry leather leggings (for motorized troops), jodhpurs (trousers), anorak and feathered helmet ornament are all in evidence.

If **35395, British Mechanic-Western Desert (24)** looks familiar, it's because he's the standing figure from 35389, the British Desert Rat Tankers set. As a single figure he depicts a mechanic holding a piston in one hand and wrench in the other. The only difference is his arms. This piece is a good idea if you don't need the full set of three.

35398, Freedom Fighter, Chechnya (25), could be one of the best figures we've ever seen released by the prolific Warriors. He represents a Chechnyan freedom fighter, but the only thing that truly identifies him as one is the head and the knit cap. Most Chechnyan fighters wore either civilian clothes or Russian army garb. The sculpting here is first rate and the casual pose is well executed. This guy would look interesting with a variety of other heads.

If you're looking for company for that Model Vic Semovente update set, **35410, Fallschirmjaeger (Semovente-SPG) Crew (26)**, might be just

the ticket. After the Italian surrender, the Germans "borrowed" a number of armored vehicles to continue the fight. There are several well-known photos of Fallschirmjäger crewing at least two type of Semovente SPG's. The set contains two para's posed in the large open fighting compartment of the Semovente M40/75. The poses are good and this would be an interesting derivation on the Italian armor theme.

35411, Afrika Korp Tanker-Seated (27), is a real simple, single figure. He is posed sitting cross-legged, having a smoke and sporting a bandage across his forehead. He'd fit in just about anywhere, on top of a Panzer, or within a hospital scene. His compact pose would also make him a cinch to paint.

35413, Panzer Grenadiers (28), is a two figure action set of a running MG team. They wear the later style uniform blouses with Wehrmacht insignia. They both are posed in



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mid stride and one of the poor bastards is taking a hit. One wears the late style boots and gaiters while the unlucky dude was just lucky enough to retain his high topped leather boots.

35414, Defenders Of The Reich (29), makes up into a mini three figure vignette. You get three guys moving through the rubble of a destroyed factory. These guys are out to kill some Russians! A real selection of late war gear is in evidence. A Panzerschreck, a Sturmgewehr and a G43 rifle round out the weapons cache. The figures are generally outfitted for winter fighting, they are all bundled up and ready for anything.

The base is a real detail fest, with a twisted girder and highly realistic brickwork. The brick base work is fully detailed on all sides. We especially liked the way the figures are posed spilling over the base. This extends the action outside the "invisible viewing wall" and makes it seem that much more real. Snatch this one up!

35415, SS Infantryman with Panzerfaust (30), depicts a grenadier lying on his side and using an arm and hand signal. The Panzerfaust is in his other hand. He wears the familiar camo smock with a scarf along with gloves and gaitered boots. You know... if that brick base was a little bigger, this guy could jump right in!

35416, Wehrmacht Tanker with Pipe (31), is a Wehrmacht officer in a very stylish pose. He has a look of confidence as he checks out his pipe. He is wearing the denim reed green panzer wrap with the large front pocket.

35418, Fallschirmjäger Mortar Team (32), contains four bad-ass FJ's to crew your Tamiya 60mm mortar. The mortar is not included in the kit, of course, but the figures are ready to rock with poses ranging from loading to ammo toting. Think Monte Cassino or even the Ardennes.

35419, SS Tanker with Doberman (33), is a seated Panzer-type with man's best friend. He wears the standard Panzer uniform and cap (the figure, not the dog). The poochie is a Panzerhund IV, Aust. D. A nice little instant vignette.

35420, Waffen SS Tankers (34), might want to get a hold of the guys above, if they're not doing anything. The set depicts two guys sitting and reading. They would look perfect posed on just about any German armored vehicle you might have lying around.

35421, Afghan Warriors 79 to Present-Set 1 (35), is as timely as today's headlines. The set is composed of two very competent figures decked out in the local Afghan fashion. The detail is well done here and one figure is posed with an RPG and the other is posed with the weapon of choice, an AK-47. This is the first of several sets on the subject from Warriors and this should give you plenty of unique opportunities to display your Soviet armor.



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Leave the Driving to Us

Go Greyhound and Go Nuts with Tamiya's M8

It's been almost four years since Tamiya knocked our socks off with their 1/35 M8 Greyhound. In fact, you'll have to go all the way back to Issue 17 to read the out-of-the-box review. (Go ahead, we'll wait right here.) When our beloved editor gave me the M8 photos to research for the latest issue of *Allied-Axis* (that's Issue 5, so go get that as well), we decided it was time to do it up right. The aftermarket guys have had ample time to go over the Greyhound and they have attacked it with gusto. Between Allied-Axis and this writing a few more relevant texts and facts have been uncovered, so you might just consider Allied-Axis 5 to be part 1 of this article. There was so much to love that the painting phase will be a separate feature in MMiR 29. So let's take one Tamiya kit, add 784 detail parts and see what comes out the other end.

Historical stuff

If you loaned out your copy of Allied-Axis 5, here's the scoop in a nutshell. The M8 Light Armored Car was the result of a Gun Motor Carriage study implemented by the War Department in July 1941. Though the program required a wheeled vehicle mounting a 37mm gun, lessons learned in North Africa showed this weapon was inadequate for armored vehicles. Thus the designation changed to light armored vehicle and the T22 prototype developed by the Ford Motor Company was accepted in May 1942. From March 1943 to April 1945 over 8,500 M8s were produced, including units supplied to France and Great Britain. The British nicknamed the vehicle 'Greyhound', a moniker that never quite caught on among U.S. troops. The M8 served primarily in Europe though some saw service in the Pacific Theater. In its principal role of escort and recon, the M8 was an extremely reliable vehicle, replacing the M3A1 Scout Car. The rear-mounted Hercules JXD engine provided a maximum speed of 60 mph for the 16,500-lb. vehicle. A 54-gallon fuel tank was installed forward of the engine and the six wheels were propelled by all wheel drive.

The open top turret could traverse 360 degrees by use of a hand wheel and sported a flat trajectory, single shot 37mm cannon and M1919A4 .30 cal in a Combination Gun Mount M23A1. Initially the M8 had no .50 cal, then a pintle was added to the back of the turret. To increase the field of fire, many vehicles sported a variety of ring mounts copied from the M20. The final design was the D7058824 mount for the .50 cal, which folded vertically scissors-style to allow the operator to hunker down inside the turret. Fully armed, the M8 carried 80 rounds for the 37mm, 400 rounds for the .50 cal and 1,500 rounds for the .30 cal.

Several production changes were introduced throughout the manufacture of the Greyhound. Earliest versions lacked the armatures on each side that locked the driver and co-driver hatches in the open position. Mine racks on each side were replaced with additional stowage lockers between the front and rear fenders. A two-speed turret traversing mechanism was added. The back fender panels adjacent to the rear vent lost their upward angle and were reinforced with ribbing. Later ver-



sions received armored floor plate.

A real puzzler is the floor-mounted ammo rack seen in many museum vehicles. This is believed by some to be a post-war modification by allied countries, while others believe that certain M8s carrying two radios had this rack installed. Master Sergeant Sam Zafran, US Army (Retired), served as an M8 driver and radio operator while a corporal with the 759th MP Battalion and E Troop, 12th Constabulary Squadron and says he never saw the floor racks. I went along with Sam and left it out, though most aftermarket companies include it as an option. It must be noted that in addition to radio repositioning, there is ample evidence in both photographs and TMs that interior items were subject to change. Flashlights, mike hooks and other small items could be relocated using their dedicated brackets.

Another source of interest is the onboard radios. Tamiya includes the SCR-508, a widely used FM radio. Sam's vehicles used the AM frequency SCR-506, which is handily included in the Verlinden update set. The TM (see references) lists all applicable radios and even states that the 506 is the only model to go in the right inside sponson. The published changes (see references again) cover the interchangeability of all models on both right and left sides, but reference is never made to replacing the ammo racks when two radios were installed. Interesting. Both Verlinden and Royal include the MP-48 antenna mount as seen in the Tamiya kit, which is the 'substitute standard type' for the AB-15/GR antenna normally associated with the SCR-508. The SCR-506 used the MP-65 antenna mount with its unique bellows-shaped base and can be found in several VP armor updates.

The M8 used the RC-99 Interphone Equipment,

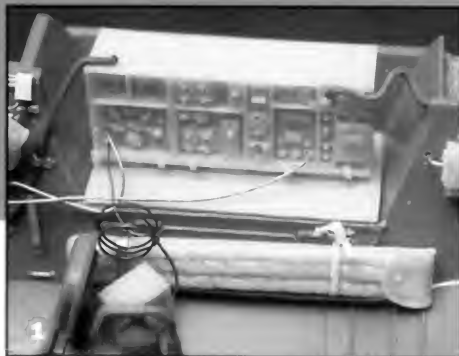
with a box, headphones and mike for each of the four crewmen. The gunner and commander used BC-739 boxes while the driver and co-driver/radio operator used BC-606 boxes. In 1/35 scale, they are virtually identical. All interphone wiring eventually connected to the Interphone Amplifier BC-367, which is the odd box located in the left rear of the fighting compartment and found in the VP update. The commander had patch cords enabling him to switch from the interphone to the radio (these cords were actually installed on the gunner's box due to its proximity to the amplifier); but in conjunction with the SCR-506 radio, the RTO had a second switchbox (BC-658) to his right that gave him the same capability. Everyone still awake?

Thus the vehicle depicted here is of early 1944 vintage, with forward hatch supports, ribbed rear fender panels, mine racks on the sides and a field mod gun ring up top. Let's look at some pretty pictures.

—Joe Porter

(So there's more room for the photos, I'll stick my massive MMiR Recce in the next installment!)

1. The two brass wires from the SCR-506 lead to the RTO's upper interphone box. The large wire at upper right leads directly to the antenna. Interphone wiring between the driver and RTO ran across the crossbeam; the wiring on top of the radio will be finished later to represent this. The Tamiya kit only provides one of the lower sponson covers, so a second was snagged from a second kit. The initial design called for four smoke pots and 24 boxes of K-rations to be stored in the lower right sponson. The M238 flag set is included in the VP update and is shown here in its proper location augmented with straps and tie-downs. Red, green and orange signal



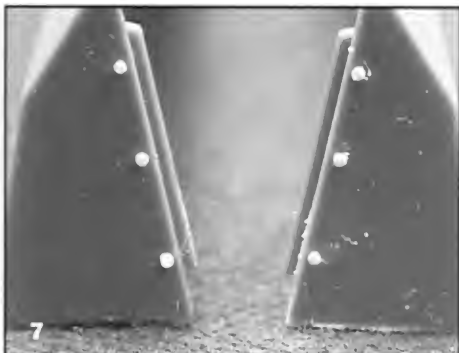
flags were stored inside this bag. 2. The right engine compartment wall, with the battery installed. Center is the generator regulator and upper right is the ammeter shunt box. Flexible hose for the water lines has been installed at the bottom of the radiator and will be connected to the engine. 3. The left engine

compartment wall. The large cylinder below is the Hydovac power brake cylinder. At upper left is a pair of one-quart engine oil cans. Center is a one-pint oiler (trigger type) from another VP set. Directly above the Hydovac is the oil bath air cleaner and carburetor air intake. 4. Each of the six rims was drilled



through and valve stems added from brass wire. 5. In place of the lip on the rear of the front fenders, these four bolts are found, punched from sheet plastic. There are several aftermarket etch options for rebuilding the mine racks, but I was happy with the Tamiya parts. 6. There are Royal headlight guards,

with a bit of Testors putty for welds. Royal thoughtfully provides the headlight socket plugs, augmented with Aber chain. 7. These three bolts are missing from the rear fenders and were punched from sheet plastic. 8, 9. The .50 cal mount on the gun ring was detailed with spare etch, plastic tube, Grandt Line bolts and



fine wire. 10. Six hex head bolts were added to the sidewalls on each side. The co-driver's two interphone boxes (in conjunction with the SCR-506) can be seen, plus the clip to his right for holding the MS tech manual. Extra tie-downs were added on each side of the seats for attaching seat belts. Wiring from the dri-

ver's compartment ran up to the crossbeam and was routed through metal sleeves in the ceiling, which was represented with sections of Plastruct. 11. In the right rear corner is the Battery Master Switch, wired directly to the battery in the engine compartment. This killed all electrical components in the vehicle.



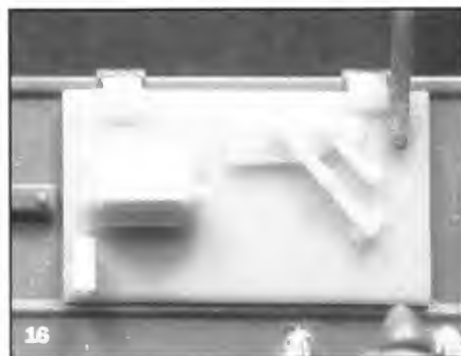
The canister is a chemical decontaminant device. The commander's interphone box can be seen, along with two grenade boxes, plus a flare box in the center of the rear wall. 12. In the left rear corner of the fighting compartment is the Interphone Amplifier BC-367, the gunner's BC-739 interphone box an oddments

cup and a scratchbuilt quart can for "OIL, RECOIL." Flexible rubber hose was used for the interphone lines. In reality the MS housed a radio terminal box inside the sponson wall on each side, hidden from view and the radios and interphone system routed through these boxes. The VP ammo rack and shell



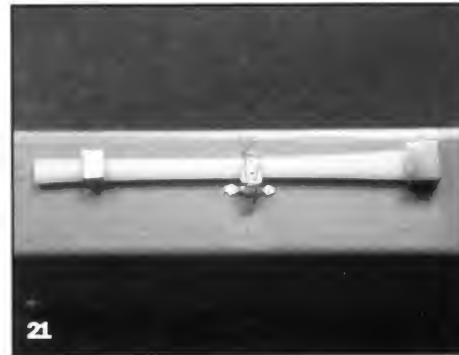
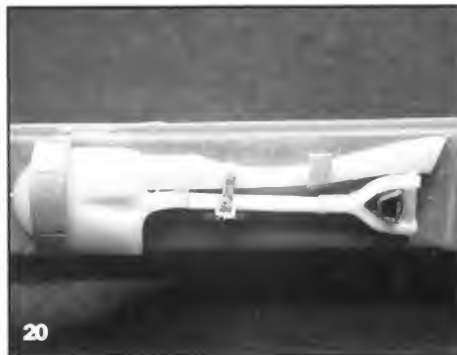
butts are installed. The lower left sponson was designed to hold 400 .30 cal rifle rounds, 1,500 .30 cal belted rounds for the MG and 15 signal flares. 13. A closer look at the forward wall. Weld beads were added using Plastruct 90850, their smallest rod. Pieces were attached and softened with Tamiya Extra Thin

Cement, then poked and prodded with a toothpick for texture. 14. The LS-3 loud-speaker is a VP item from the parts box, plugged into the SCR-506 at the lower left. 15. Behind the driver's seat are a 5-gallon water can, 37mm spare parts box and the 4-lb. CO2 fire extinguisher. 16. VP's forward hatches are a great



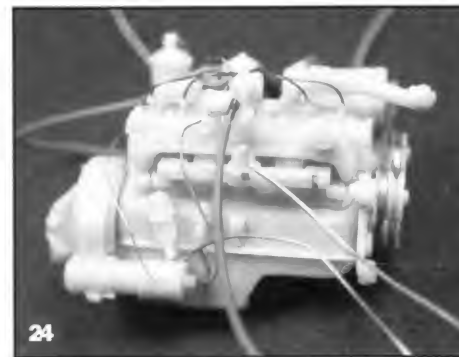
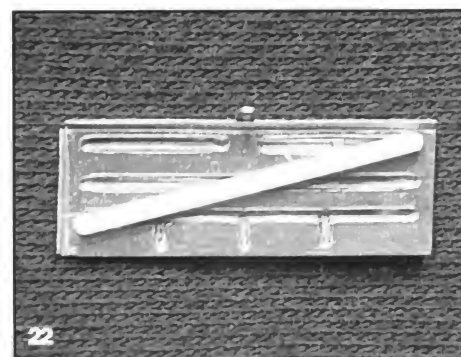
improvement. The long handles were cut from the kit parts and the small square handles were made from Plastruct channel. 17. Beneath the main gun, just forward of the turret, a pair of Eduard brackets help contain the Staff, Cleaning, M5A1 (cut from brass tube) and the spare antenna with cover, made

from Apoxie-Sculpt. The bag straps are paper and the bag is held with etch and foil straps to Aber tie-downs. Note the position of the pick head and the round mount inside the hole (plastic tubing), akin to that found on the shorel. 18. Brass wire was added for the two firing cables leading from the pedals and is



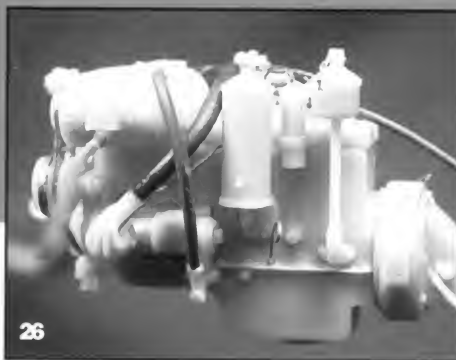
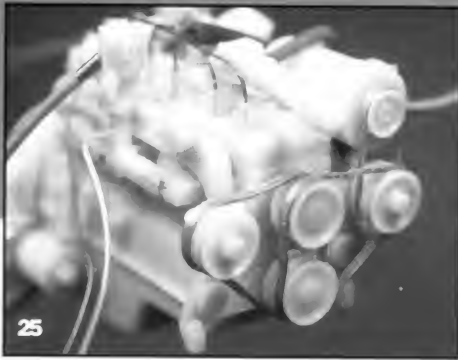
seen here waiting for the installation of the turret and Combination Gun Mount M23A1. The carbines in the VP update are wonderfully detailed, but a bit too large for the turret, since the upper clips (made from foil) attach to the rifle barrels. VP's .30 cal spare parts box can be seen in the turret basket. The

segments of the turret index ring were notched on the vertical face and another pair of punched bolts was added to each section. 19. The ammo rack in the rear of the turret. I placed eight HE shells with their longer noses here. The overhead guards for both racks were devised from sheet plastic; note that they cover fully



the shells beneath. 20. VP's axe and shovel. Note the position of the brackets plus the Aber tie-downs and strap. 21. Overhead view of the pick handle. 22. The lid for the open right storage box, with Eduard hasp and a strip plastic reinforcing bar. 23. Verlinden's .30 cal spent shell bags and etched recoil guard,

along with Aber chain for the .30 cal locks. 24, 25, 26 & 27. Verlinden's magnificent Hercules JXD engine. All wired up, this little beauty is comprised of over 50 parts. The TMs were studied closely for hoses and wiring, which will be trimmed when the engine is installed. 28. Forward of the gunner is a scratch-



built first aid box lashed to the underside of the turret support plate. 29. The crossbeam behind the driver compartment was lowered using heavy plastic strip. The forward turret roller is seen here, made from a 1/48 wheel and spare parts. (The other two rollers are located at the 4:00 and 8:00 positions.) A spare

barrel for the .30 cal was stowed in front of the commander on the back of the crossbeam; this was taken from an Italeri MG. 30. The .30 cal tripod was stowed inside the right rear stowage box, but the .50 cal tripod was lashed on top. This tripod was scratchbuilt using metal tube, plastic and foil, with a dust cover



from Apoxie-Sculpt. Royal buckles and Aber tie-down hooks can also be seen. Note the four notches in the tip of the engine hatch, ground out with a motor tool. 31. A look at the upper and lower halves coming together at the nose. On the VP front wall, the small canister is the hydraulic fluid reservoir. The two

white plastic boxes replaced the molded items and each would hold spare Protectoscope lenses for the forward vision slot. Eduard's dash and acetate gauges are in place, augmented with plastic knobs. The hand brake protruding to the right of the dash was scratched from strip plastic. In front of the RTO is



a forms box, scratchbuilt Sherrill compass and three pairs of ring brackets for stowing the service headlights or blackout lights when not in use. These odd brackets were cut and punched from spare etch. Extending directly beneath each headlight is a scratchbuilt lock used to quickly dismount the headlights.

32. Front fenders before and after. The rear lip should be removed as seen here, as all front fender bolts were underneath. 33. Eduard hasps with Royal chains were used on the stowage boxes with wire forming the staple through the spring clip. With no left side radio, the left antenna mount was replaced with a



punched plastic cap. Four punched bolts were added around the antenna mount on each side, on the exterior walls of the stowage boxes. 34. A bit of angled Plastruct forms the tow cable guide at the right rear. 35. A closer look at the travel lock, dispatch case and commander's binocular cup and flashlight.

Two ammo racks holding eight rounds each were located in the turret, made from Eduard racks, VP shells, foil clips and plastic upper shields. A close-up of this ammo rack can be seen in photo 19. 36. Royal's stowage rack and hooks detail the turret exterior.

Dear Mr. Churchill



Building and detailing the new-old Tamiya Mk VII

The Churchill Mk. VII was easily distinguished from the other marks by its round side hatches, round driver's vision port and round Besa machine gun opening in the hull. The turret was cast with a lip on its base and a rolled two-section roof plate was welded on. The new all round vision cupola with single or twin sighting vane was also seen on this version. The tank hull was completely welded, wider and had thicker armor (152mm) that resulted in a heavier and slower vehicle. It was an infantry tank, so speed was not a major factor and it retained its excellent climbing ability. The track rails or guides were different from other Churchills, as was the mud chute opening. It carried a 75mm main gun, providing a muzzle velocity of 2030ft/sec and two Besa 7.92mm machine guns, one in the turret and the other in the hull. The Mk. VII was the ultimate improvement over the other earlier versions in both armor and firepower.

Tamiya's Kit

The Churchill Mk. VII kit (#35210) is basically the excellent original Churchill Crocodile kit (#35100) with new sprues (F & G) provided that contain a tank crew and a farmer with a milk cart and accessories. A clear styrene sprue provides lanterns, bottles and goggles for the crew. All the Crocodile and trailer parts are omitted (sprue E). Some of the hull openings are also sealed off. New and better decals are provided, along with better, larger assembly instructions. The original figures

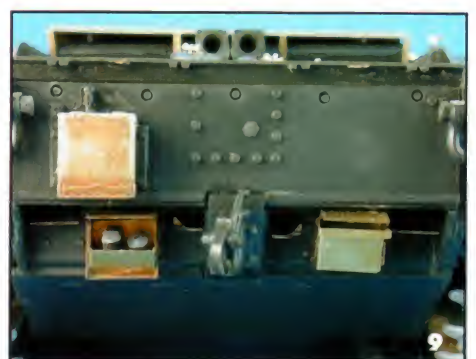
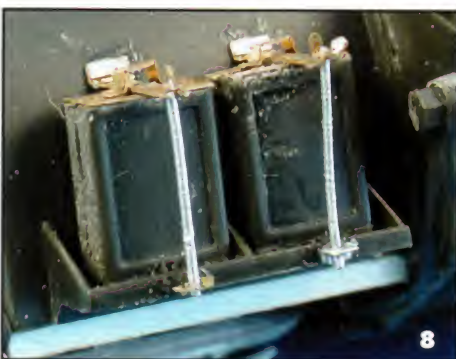
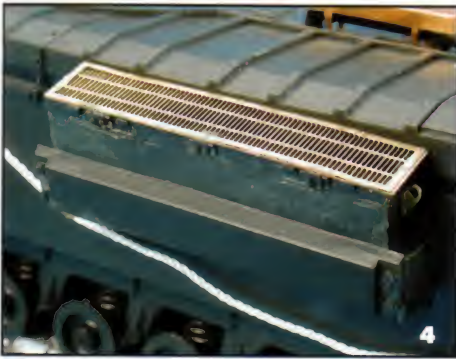
are still included along with three new and well-detailed crewmen in relaxed poses dealing or negotiating with a farmer. The kit tracks are the newer plastic, which is capable of being glued together with plastic cement. The old heat and squash method of the previous vinyl track was not required for joining the track ends.

Metal tracks

New individual metal track links are from Friulmodellismo of Hungary (ATL-60) and come in two bags separating the left and the right side (or so I thought). The tracks were well molded and use fine wire for pinning the tracks together. They depict the manganese light steel tracks that provide a ground pressure of 13.1lb. per square inch and require 72 links per track. Minor clean up of mold lines is needed and the tracks were put together in a short period of time. A file, wire cutters and a drill were used in the assembly. Cyanoacrylate and Elmers white glue was used to hold the wire pins in position to keep them from falling out if the model is tilted. The tracks have a bolt head molded on the outer exposed side of the track, so the wire pins were inserted part way through the holes in the track link and then cut off. The model requires 72 links per side, just like on the real thing, but two more links were added to make assembly easier and avoid strain on the running wheels. A generous number of links are provided. So many links were left over and this allowed me to use them as add-on armor for the hull and turret. After assembly of the individual bags of links, it

was noted that both left and right tracks were exactly alike. I was very disappointed with the tracks at this point, as the pack contained links for only one side, although two bags for differentiating the right and left side were in the box. Therefore, one side had the pins exposed when they should have been hidden on the underside of the tank. A second package of tracks yielded the same results and it appeared that the manufacturer molded only one side of track. In addition to actually providing two bags, they claimed left and right sides in the instructions, as well. This was unfortunate and found to be misleading to any modeler.

Eduard's etched set (35-135) was made specifically for the new Tamiya kit and provides excellent detail. Two well-detailed brass frets were included and come with three pages of instructions and detailed drawings for placement of the pieces. Some of the styrene kit parts were removed and replaced with excellent photo etched parts. Parts included access hatches or hull floor traps, periscope covers, hinges, clamps, optional sights, mud plough and so on. Parts were cut off with a sharp knife, sanded to remove burrs, bent with a pair of flat pliers and straight edge, then glued into position. Parts that required a rounded shape were bent with a drill shank on a flexible rubber surface. Heating was not necessary to shape any of the parts. Some parts were not properly registered when etched, resulting in pieces with small lips or edges on one side, or simply too wide in some cases. This required more sanding in order to even out the parts. Remember to



The side access panels for the left mud chute is among the many Eduard items. 2. Additional details include the small fitting found around the front crew hatches and periscopes. 3. Three links from the Friul set were added to the Eduard brackets on the left side of the model. 4. These replacement air intake grills were a vast improvement. 5. The exhaust system and guard installed. The engine door struts were fashioned from styrene rod and small

brass pins. 6. The plastic holders were cut off all the tools and replaced with brass parts, which included wing nuts, clamps and wire. 7, 8. The large can at the rear was replaced with a "Blitz" can from Tamiya's Allied Vehicle Accessories Set. Eduard provides extra detailed parts for the stowed oilcans, as well. 9. Additional parts for the rear hull include the telephone box located on the left of the photo.

always sand parallel to the edge, or else the part may bend or get lost when it opposes the sanding wheel. This was the first time this offset problem was encountered with Eduard, as they usually have good quality control. In the future, the frets I will check very carefully for this type of error.

Tank hull

The kit began with the assembly of the front idler and rear drive sprockets. The idler wheels have square lightening holes, but this detail is not readily seen unless the tracks and fenders are removed. The frontal armor with the Besa (7.92mm MG) and driver's door was assembled next. The door can be displayed either opened or closed and the machine gun can be rotated. This assembly is inserted into the hull by spreading the front opening and snapping the piece into position. The front glacis, headlights, towing eye and dog and shackle were then added. Eduard provides light covers and mud guards and angles for the inside of the front track horns. Two towing eyes were added from styrene and these are fitted over the two holes in the horns. These allowed the Hollebone tow bar to

be attached if recovery was necessary. One mud-guard was left on while the other side was omitted in order to display the finely detailed track. This tank was slow, but the frontal vertical armor of the Mk VII was six inches thick and afforded the crew great protection.

The drive axles were inserted and poly caps fitted into position with the rear hull plate. The rear smoke dischargers were detailed with the Eduard parts and a rear tow hook cable added. Eduard provides the option of the smoke dischargers being either opened or closed and added four air deflectors. Some Mk VII's had factory pre-fitted attachment points for the Crocodile fittings and these are displayed on the rear hull. This was done to quickly facilitate conversions to the Crocodile version in the field.

The twelve pairs of road wheels were assembled for both left and right sides and then glued into position on the hull with the drive sprockets and idler wheels. The exhaust system and guard is then added, together with the tools and side pannier doors. The mufflers were separated with a fine saw as the tank had two separate mufflers and exhaust pipes. The plastic holders were cut off the tools and

were replaced with brass parts, which included wing nuts, clamps and wire. This assembly was probably the most fastidious part of the entire construction process. All the styrene grab handles were cut off and replaced with Eduard parts, which required bending with a straight edge and glue. Cable holders, air intake grills, POW holders, blast screens and other tool clamps are provided in the brass frets and these replaced some of the styrene features. The holes from the tools were filled with styrene rod and sanded flat. The brass parts were then assembled onto the tools and the items glued to the rear deck.

The fittings for the engineering attachments were cut off and then sanded with a file as these were only observed on AVREs and only on the Mk VII postwar.

Tank turret

The turret was assembled next. The interior lip that holds the turret top in position was thinned down to allow the top plate to sit lower in the turret. A weld seam was then added from putty and weld beads were formed with the tip of a knife blade. A



10. The mud plough, or scraper was assembled and fixed in position at the rear end of the tracks. Copper wire was wound around a piece of piano wire and fashioned to look like a spring. Two styrene strips were also added to the track cleaners that attached to the rear fenders. 11. A variety of etched parts were added, as well as weld beads made from putty. 12. Several periscopes were fashioned from plastic and inserted into the commander's all around vision cupola. Hatch locks were made from styrene and placed into etched holders. 13. Eduard provides new fire extinguisher holders. The flag holder is made of canvas, so the plastic part was gouged with a sharp knife to represent folds. 14. This is the etched hasp for the rear turret storage box. 15. A locking nut made from styrene was added to the muzzle brake. 16. The turret Besa holder was hollowed out and the barrel replaced with rod. The original flash suppressor of the Besa was cut off and added to the end of the new rod after being drilled out.

weld bead was also depicted on the seam between the two roof plates. Several periscopes were fashioned from plastic and inserted into the commander's all around vision cupola. Eduard provides a wealth of detail for the turret. These include hinges, hasps, periscope weather guards and gun sights. These parts were folded as required and secured with cyanoacrylate glue. Hatch locks were made from styrene and placed into the bent brass holders from Eduard. Turret casting numbers were added below the mantlet and on the turret's port side. These numbers were cut from the Tamiya sprues and attached using lacquer thinner as the adhesive.

Many German gunners used the dark indentation of the Churchill's internal mantlet as an aiming point, much to the demise of the Churchill that came into range. To counter this threat, some Churchill crews added a flat armor plate on to the gun barrel, over the opening. Late production Churchill turrets were cast with two bulges to reduce the dark opening and also to prevent a shot trap. These additions increased light reflection and reduced the dark opening as a target.

The two halves of the Ordnance, Q.F., 75mm, Mk. V gun were glued together and after drying, the seam was filled and cleaned up. The turret Besa holder was hollowed out and the barrel replaced with rod. The original flash suppressor of the Besa was cut off and added to the end of the new rod after being drilled and reamed out.

The bulges were sanded off the Tamiya turret,

as the tank being modeled did not have them and was obviously not a late version Mk. VII.

Eduard provides new fire extinguisher holders and hasps for the rear turret storage box. Hatch catches, hinge detail and holders for the signal flags were also made from brass. The flag holder is made of a sharp knife to represent folds. The holes for the holder were filled with rod and putty.

Aerials were made from piano wire and were fitted into the respective rubber holders for the 'A' and 'B' sets. Eduard provided the ring and supports in one piece for the 'B' aerial. The 'B' aerial was 20 inches in height while the 'A' aerial was made up of two four-foot lengths that screwed together on the actual tank. This model had two aerials for the #19 and one for the WS38 radio.

The commander's sight chosen did not resemble the sights seen in the references, so a new one was assembled from a fine strip of soda can aluminum. Eduard provides two sights, one of which is seen mainly on postwar tanks.

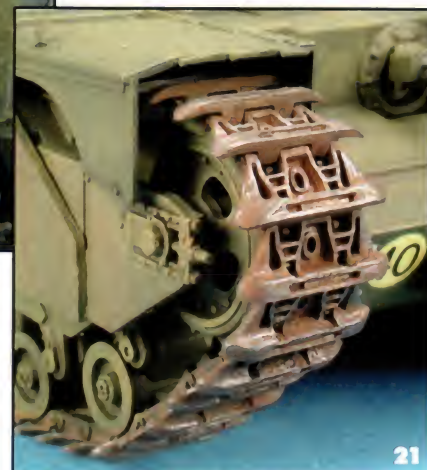
The mud plough, or scraper was assembled and fixed in position at the rear end of the tracks. Two small springs were fashioned from wire and were added to the scrapers. Copper wire was wound around a piece of piano wire and fashioned to look like a spring. Two styrene strips were also added to the track cleaners that attached to the rear fenders. These stripper plates prevented debris from returning under the mud fenders and clogging the tracks or deflecting the fenders on the real vehicle. The well-detailed plates for the stand off armor skirts were left off. A few other brass parts were left off as their assembly time and detail did not warrant replacement of the Tamiya parts. New foul

weather covers were added to the hull periscopes along with grab handles, lock staples and light covers. Additional braces were added to the hull front together with running or side light holders, which showed the width of the vehicle at night. Two brackets or supports were replaced on one of the fenders. These supported the mudguards over the horns when they were raised up and bent over for track adjustments. These brackets can be seen on the remaining fender while three pieces of styrene rod represent the hinge detail for the missing fender. Eduard provides extra detailed parts for the stowed oilcans, rear telephone box, engine hatch holders and the protective screen for the exhaust. The large can at the rear was replaced with a "Blitz" can from Tamiya's Allied Vehicle Accessories Set. This was a British copy of the Jerry can and had War Department stampings and a WD arrow. The brass parts were carefully bent, folded and glued into position.

The air intake armored housings were tackled next and the three access vents were sanded off and the area smoothed with liquid glue. The side lifting eyes were added from the Eduard set. The intake grills and frames were then secured in position.

The rear smoke emitters consisted of no less than five brass parts each and can be displayed either open or closed. Styrene rod replaced the brass rectangles, which are to be bent to represent the smoke canisters. Four small brass flaps are also provided for directing the air out of the rear vent. Access hatches below the hull were fixed in place after consulting with references for their exact placement.

The engine door struts were fashioned from styrene rod and small brass pins. These were fitted



into the holder from Eduard, after the styrene parts were cut off. The tow cable ends were drilled out with nylon string replacing the styrene cables. The holes for attaching the plastic cables in the panniers were filled with styrene rod. The cable holders were added over the side doors and the new nylon cables were positioned and glued. Three spare track links were added to each of the side panniers and a single link was added to the rear of one side. The other link was left off the opposite side to display the Eduard spare track holder.

Painting

The kit was dusted off and spray painted with Humbrol #116 then given a light coat with Humbrol #117, suitably diluted. The flat areas were given special attention by making sure this color was noticeable. Testor's Dullcote was then heavily applied with the airbrush and the kit was then allowed to dry for a few days in a dust free environment, like an old shoebox.

The Dullcote is lacquer paint and so it withstands the washes to follow. Black and dark brown oil paints were then generously diluted with paint thinner and the mixture was applied by brush. Small areas were done and the wash was removed with a soft, clean, lint-free rag soon after application. This wash allows shadowing in recessed areas and the cloth removes any hard edges. The vehicle was then dry brushed with the #117 paint and an earth tone color. Tools and weapons were then picked out with a fine brush. Gunmetal and wood colors were used where appropriate. The tracks were already metal, so they were given a heavy wash of black followed by a brown wash. This was also done to the exposed engine exhaust parts. Periscopes were painted dark green followed by a coat of clear gloss to represent glass. A soft graphite pencil was scraped over various areas of the vehicle to simulate scratches and worn paint and over all gunmetal parts, tracks and tools. Fire extinguishers were painted red although other

17. The completed rear hull. The markings are a combination of the original Crocodile model and the new kit. 18. The left side air intake with the crew-applied name. 19. The completed mud scraper and right rear spare track link. 20. The heavily armored front hull. The circular opening in the hull can be positioned opened. 21. The right front mudguard was left off to display the finely detailed track. 22. A view of the finished exhaust system and tools.

references state that they may also have been green or orange in color.

Decals

The decals are from Tamiya and are a combination of the Crocodile decal sheet and the present kit's sheet. Using the Tamiya Photographic Album as a guide, decals were selected to represent the number two vehicle, second troop, B Squadron, 107th Royal Armoured Corps, 34 Army Tank Brigade, Second Army. The decals were applied as

directed, then covered with Solvaset to remove air bubbles and soften the decal. A final touchup coat of flat paint removed any surface gloss on the decal and the kit was complete except for a light dusting with soft pastels.

This Tamiya kit was a lot of fun to build and displayed great detail for such an early mold. The Eduard photo etch set really enhances and details this fine war-horse.

—Carlos D'Arcy



MMiR RECCE

Tamiya Churchill Mk VII. Kit number 35210. Kit graciously provided by the manufacturer. Suggested retail price \$34.00.

Friulmodellismo Churchill Tracks. Kit number ATL-60. Kit graciously provided by Friul's U.S. importer, Chesapeake Model Designs. Suggested retail price \$20.00.

Eduard Churchill Mk VII etched set. Kit number 35-135. Kit graciously provided by the manufacturer. Suggested retail price \$20.00

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